

**Case Note:** Case concerning the construction of the Sardar Sarovar Dam over the river Narmada.

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## **IN THE SUPREME COURT OF INDIA**

Decided On: 18.10.2000

**Narmada Bachao Andolan**

**v.**

**Union of India and Others**

**Hon'ble Judges:**

Dr. A.S. Anand, CJI., S.P. Bharucha and B.N. Kirpal, JJ.

## **JUDGMENT**

**B.N. Kirpal, J.**

1. Narmada is the fifth largest river in India and largest West flowing river of the Indian Peninsula. Its annual flow approximates to the combined flow of the rivers Sutlej, Beas and Ravi. Originating from the Maikala ranges at Amarkantak in Madhya Pradesh, it flows Westwards over a length of about 1312 km. before draining into the Gulf of Cambay, 50 km. West of Bharuch City. The first 1077 km. stretch is in Madhya Pradesh and the next 35 km. stretch of the river forms the boundary between the States of Madhya Pradesh and Maharashtra. Again, the next 39 km. forms the boundary between Maharashtra and Gujarat and the last stretch of 161 km. lies in Gujarat.

2. The Basin area of this river is about 1 lac sq. km. The utilisation of this river basin, however, is hardly about 4%. Most of the water of this peninsula river goes into the sea. In spite of the huge potential, there was hardly any development of the Narmada water resources prior to independence.

3. In 1946, the then Government of Central Provinces and Berar and the then Government of Bombay requested the Central Waterways, Irrigation and Navigation Commission (CWINC) to take up investigations on the Narmada river system for basin-wise development of the river with flood control, irrigation, power and extension of navigation as the objectives in view. The study commenced in 1947 and most of the sites were inspected by engineers and geologists who recommended detailed investigation for seven projects. Thereafter in 1948, the Central Ministry of Works, Mines & Power appointed an Ad-hoc Committee headed by Shri A.N. Khosla, Chairman, CWINC to study the projects and to recommend the priorities. This Ad-hoc Committee

recommended as an initial step detailed investigations for the following projects keeping in view the availability of men, materials and resources:

1. Bargi Project
2. Tawa Project near Hoshangabad
3. Punasa Project and
4. Broach Project

4. Based on the recommendations of the aforesaid Ad-hoc Committee, estimates for investigations of the Bargi, Tawa, Punasa (Narmadasagar) and Broach Projects were sanctioned by the Government of India in March, 1949.

5. The Central Water & Power Commission carried out a study of the hydroelectric potential of the Narmada basin in the year 1955. After the investigations were carried out by the Central Water & Power Commission, the Navagam site was finally decided upon in consultation with the erstwhile Government of Bombay for the construction of the dam. The Central Water & Power Commission forwarded its recommendations to the then Government of Bombay. At that time the implementation was contemplated in two stages. In Stage-I, the Full Reservoir Level (hereinafter referred to as 'FRL') was restricted to 160 ft. with provision for wider foundations to enable raising of the dam to FRL 300 ft. in Stage-II. A high level canal was envisaged in Stage-II. The erstwhile Bombay Government suggested two modifications, first the FRL of the dam be raised from 300 to 320 ft. in Stage-II and second the provision of a power house in the river bed and a power house at the head of the low level canal be also made. This project was then reviewed by a panel of Consultants appointed by the Ministry of Irrigation & Power who in a report in 1960 suggested that the two stages of the Navagam dam as proposed should be combined into one and the dam be constructed to its final FRL 320 ft. in one stage only. The Consultants also stated that there was scope for extending irrigation from the high level canal towards the Rann of Kutch.

6. With the formation of the State of Gujarat on 1st May, 1960, the Narmada Project stood transferred to that State. Accordingly, the Government of Gujarat gave an administrative approval to Stage-I of the Narmada Project in February, 1961. The Project was then inaugurated by late Pandit Jawaharlal Nehru on 5th April, 1961. The preliminary works such as approach roads & bridges, colonies, staff buildings and remaining investigations for dam foundations were soon taken up.

7. The Gujarat Government undertook surveys for the high level canal in 1961. The submergence area survey of the reservoir enabled assessment of the storage capability of the Navagam reservoir, if its height should be raised beyond FRL 320 ft. The studies indicated that a reservoir with FRL + 460 ft. would enable realisation of optimum benefits from the river by utilising the untapped flow below Punasa dam and would make it possible to extend irrigation to a further area of over 20 lakh acres. Accordingly,

explorations for locating a more suitable site in the narrower gorge portion were taken in hand and finally in November, 1963, site No. 3 was found to be most suitable on the basis of the recommendations of the Geological Survey of India and also on the basis of exploration and investigations with regard to the foundation as well as construction materials available in the vicinity of the dam site.

8. In November, 1963, the Union Minister of Irrigation & Power held a meeting with the Chief Ministers of Gujarat and Madhya Pradesh at Bhopal. As a result of the discussions and exchange of views, an agreement (Bhopal Agreement) was arrived at. The salient features of the said Agreement were:

a) That the Navagam Dam should be built to FRL 425 by the Government of Gujarat and its entire benefits were to be enjoyed by the State of Gujarat.

b) Punasa dam (Madhya Pradesh) should be built to FRL 850. The costs and power benefits of Punasa Power Project shall be shared in the ratio 1:2 between the Governments of Gujarat and Madhya Pradesh. Out of the power available to Madhya Pradesh half of the quantum was to be given to the State of Maharashtra for a period of 25 years for which the State of Maharashtra was to provide a loan to the extent of one-third the cost of Punasa Dam. The loan to be given by the State of Maharashtra was to be returned within a period of 25 years.

c) Bargi Project was to be implemented by the State of Madhya Pradesh, Bargi Dam was to be built to FRL 1365 in Stage I and FRL 1390 in Stage II and the Governments of Gujarat and Maharashtra were to give a total loan assistance of Rs. 10 crores for the same.

9. In pursuance of the Bhopal Agreement, the Government of Gujarat prepared a brief project report envisaging the Navagam Dam FRL 425 ft. and submitted the same to the Central Water and Power Commission under Gujarat Government's letter dated 14th February, 1964. Madhya Pradesh, however, did not ratify the Bhopal Agreement. In order to overcome the stalemate following the rejection of the Bhopal Agreement by Madhya Pradesh, a High Level Committee of eminent engineers headed by Dr. A.N. Khosla, the then Governor of Orissa, was constituted on 5th September, 1964 by the Government of India. The terms of reference of this Committee were decided by the Government of India in consultation with the States of Madhya Pradesh, Maharashtra and Gujarat. The same read as under:

i) Drawing up of a Master Plan for the optimum and integrated development of the Narmada water resources.

ii) The phasing of its implementation for maximum development of the resources and other benefits.

iii) The examination, in particular, of Navagam and alternative projects, if any, and determining the optimum reservoir level or levels.

iv) Making recommendations of any other ancillary matters.

10. The Khosla Committee submitted the unanimous report to the Government of India in September, 1965 and recommended a Master Plan of the Narmada water development. In Chapter XI of the said Report, the Khosla Committee outlined its approach to the plan of Narmada development. An extract from this Chapter is reproduced below:

11.1 In their meeting from 14th to 18th December, 1964 at which the State representatives were also present, the Committee laid down the following basic guidelines in drawing up the Master Plan for the optimum and integrated development of the Narmada water resources:-

1. National interest should have overriding priority. The plan should, therefore, provide for maximum benefits in respect of irrigation, power generation, flood control, navigation etc. irrespective of State boundaries;

2. Rights and interests of State concerned should be fully safeguarded subject to (1) above;

3. Requirements of irrigation should have priority over those of power;

Subject to the provision that suitable apportionment of water between irrigation and power may have to be considered, should it be found that with full development of irrigation, power production is unduly affected;

4. Irrigation should be extended to the maximum area within physical limits of command, irrespective of State boundaries, subject to availability of water; and in particular, to the arid areas along the international border with Pakistan both in Gujarat and Rajasthan to encourage sturdy peasants to settle in these border areas (later events have confirmed the imperative need for this); and

5. All available water should be utilised to the maximum extent possible for irrigation and power generation and, when no irrigation is possible, for power generation. The quantity going waste to the sea without doing irrigation or generating power should be kept to the un-avoidable minimum.

11. The Master Plan recommended by the Khosla Committee envisaged 12 major projects to be taken up in Madhya Pradesh and one, viz., Navagam in Gujarat. As far as Navagam Dam was concerned, the Committee recommended as follows:-

1. The terminal dam should be located at Navagam.

2. The optimum FRL of the Navagam worked out to RL 500 ft.

3. The FSL (Full Supply Level) of the Navagam canal at off-take should be RL 300 ft.

4. The installed capacity at the river bed power station and canal power station should be 1000 mw and 240 mw respectively with one stand-by unit in each power station (in other words the total installed capacity at Navagam would be 1400 mw).

The benefits of the Navagam Dam as assessed by the Khosla Committee were as follows:-

(1) Irrigation of 15.80 lakh hectares (39.4 lakh acres) in Gujarat and 0.4 lakh hectares (1.00 lakh acres) in Rajasthan. In addition, the Narmada waters when fed into the existing Mahi Canal system would release Mahi water to be diverted on higher contours enabling additional irrigation of 1.6 to 2.0 lakh hectares (4 to 5 lakh acres) approximately in Gujarat and 3.04 lakh hectares (7.5 lakh acres) in Rajasthan.

(2) Hydro-power generation of 951 M W at 60% LF in the mean year of development and 511 MW on ultimate development of irrigation in Gujarat, Madhya Pradesh, Maharashtra and Rajasthan.

12. The Khosla Committee stressed an important point in favour of high Navagam Dam, namely, additional storage. They emphasized that this additional storage will permit greater carryover capacity, increased power production and assured optimum irrigation and flood control and would minimise the wastage of water to the sea. The Khosla Committee also observed that instead of higher Navagam Dam as proposed, if Harinphal or Jalsindhi dams were raised to the same FRL as at Navagam, the submergence would continue to remain about the same because the cultivated and inhabited areas lie mostly above Harinphal while in the intervening 113 km (70 mile) gorge between Harinphal and Navagam, there was very little habitation or cultivated areas.

13. The Khosla Committee report could not be implemented on account of disagreement among the States. On 6th July, 1968 the State of Gujarat made a complaint to the Government of India under Section 3 of the Inter-State Water Disputes Act, 1956 stating that a water dispute had arisen between the State of Gujarat and the Respondent States of Madhya Pradesh and Maharashtra over the use, distribution and control of the waters of the Inter-State River Narmada. The substance of the allegation was that executive action had been taken by Maharashtra and Madhya Pradesh which had prejudicially affected the State of Gujarat and its inhabitants. The State of Gujarat objected to the proposal of the State of Madhya Pradesh to construct Maheshwar and Harinphal Dams over the river Narmada in its lower reach and also to the agreement reached between the States of Madhya Pradesh and Maharashtra to jointly construct the Jalsindhi Dam over Narmada in its course between the two States. The main reason for the objection was that if these projects were implemented, the same would prejudicially affect the rights and interests of Gujarat State by compelling it to restrict the height of the dam at Navagam to FRL 210 ft. or less. Reducing the height of the dam would mean the permanent detriment of irrigation and power benefits that would be available to the inhabitants of Gujarat and this would also make it impossible for Gujarat to re-claim the desert area in the Ranns of Kutch. According to the State of Gujarat, the principal matters in disputes were as under:

(i) The right of the State of Gujarat to control and use the waters of the Narmada river on well-accepted principles applicable to the use of waters of inter-State rivers;

(ii) the right of the State of Gujarat to object to the arrangement between the State of Madhya Pradesh and the State of Maharashtra for the development of Jalsindhi dam;

(iii) the right of the State of Gujarat to raise the Navagam dam to an optimum height commensurate with the efficient use of Narmada waters including its control for providing requisite cushion for flood control; and

(iv) the consequential right of submergence of area in the States of Madhya Pradesh and Maharashtra and areas in the Gujarat State.

14. Acting under Section 4 of the Inter-State Water Disputes Act, 1956, the Government of India constituted a Tribunal headed by Hon'ble Mr. Justice V. Ramaswamy, a retired Judge of this Court. On the same day, the Government made a reference of the water dispute to the Tribunal. The Reference being in the following terms:

In exercise of the powers conferred by Sub-section (1) of Section 5 of the Inter-State Water Disputes Act, 1956 (33 of 1956), the Central Government hereby refers to the Narmada Water Disputes Tribunal for adjudication of the water dispute regarding the inter-State river, Narmada, and the river-valley thereof, emerging from letter No. MIP-5565/C-10527-K dated the 6th July, 1968, from the Government of Gujarat.

15. On 16th October, 1969, the Government of India made another reference of certain issues raised by the State of Rajasthan to the said Tribunal.

16. The State of Madhya Pradesh filed a Demurrer before the Tribunal stating that the Constitution of the Tribunal and reference to it were ultra vires of the Act. The Tribunal framed 24 issues which included the issues relating to the Gujarat having a right to construct a high dam with FRL 530 feet and a canal with FSL 300 feet or thereabouts. Issues 1(a), 1(b), 1(A), 2, 3, and 19 were tried as preliminary issues of law and by its decision dated 23rd February, 1972, the said issues were decided against the respondents herein. It was held that the Notification of the Central Government dated 16th October, 1969 referring the matters raised by the State of Rajasthan by its complaint was ultra vires of the Act but Constitution of the Tribunal and making a reference of the water dispute regarding the Inter-State river Narmada was not ultra vires of the Act and the Tribunal had jurisdiction to decide the dispute referred to it at the instance of State of Gujarat. It further held that the proposed construction of the Navagam project involving consequent submergence of portions of the territories of Maharashtra and Madhya Pradesh Could form the subject matter of a "water dispute" within the meaning of Section 2(c) of the 1956 Act. It also held that it had the jurisdiction to give appropriate direction to Madhya Pradesh and Maharashtra to take steps by way of acquisition or otherwise for making submerged land available to Gujarat in order to enable it to execute the Navagam Project and the Tribunal had the jurisdiction to give consequent directions to Gujarat and other party States regarding payment of compensation to Maharashtra and Madhya

Pradesh, for giving them a share in the beneficial use of Navagam dam, and for rehabilitation of displaced persons.

17. Against the aforesaid judgment of the Tribunal on the preliminary issues, the States of Madhya Pradesh and Rajasthan filed appeals by special leave to this Court and obtained a stay of the proceedings before the Tribunal to a limited extent. This Court directed that the proceedings before the Tribunal should be stayed but discovery, inspection and other miscellaneous proceedings before the Tribunal may go on. The State of Rajasthan was directed to participate in these interlocutory proceedings.

18. It appears that on 31.7.1972, the Chief Ministers of Madhya Pradesh, Maharashtra, Gujarat and Rajasthan had entered into an agreement to compromise the matters in dispute with the assistance of Prime Minister of India. This led to a formal agreement dated 12th July, 1974 being arrived at between the Chief Ministers of Madhya Pradesh, Maharashtra & Rajasthan and the Advisor to the Governor of Gujarat on a number of issues which the Tribunal otherwise would have had to go into. The main features of the Agreement, as far as this case is concerned, were that the quantity of water in Narmada available for 75% of the year was to be assessed at 28 million acre feet and the Tribunal in determining the disputes referred to it was to proceed on the basis of this assessment. The net available quantity of water for use in Madhya Pradesh and Gujarat was to be regarded as 27.25 million acre feet which was to be allocated between the States. The height of the Navagam Dam was to be fixed by the Tribunal after taking into consideration various contentions and submissions of the parties and it was agreed that the appeals filed in this Court by the States of Madhya Pradesh and Rajasthan would be withdrawn. It was also noted in this agreement that "development of Narmada should no longer be delayed in the best regional and national interests".

19. After the withdrawal of the appeals by the States of Madhya Pradesh and Rajasthan, the Tribunal proceeded to decide the remaining issues between the parties.

20. On 16th August, 1978, the Tribunal declared its Award under Section 5(2) read with Section 5(4) of the Inter-State Water Disputes Act, 1956. Thereafter, reference numbers 1,2,3,4 & 5 of 1978 were filed by the Union of India and the States of Gujarat, Madhya Pradesh, Maharashtra and Rajasthan respectively under Section 5(3) of the InterState Water Disputes Act, 1956. These references were heard by the Tribunal, which on 7th December, 1979, gave its final order. The same was published in the extraordinary Gazette by the Government of India on 12th December, 1979. In arriving at its final decision, the issues regarding allocation, height of dam, hydrology and other related issues came to be subjected to comprehensive and thorough examination by the Tribunal. Extensive studies were done by the Irrigation Commission and Drought Research Unit of India, Meteorological Department in matters of catchment area of Narmada Basin, major tributaries of Narmada Basin, drainage area of Narmada Basin, climate, rainfall, variability of rainfall, arid and semi-arid zones and scarcity area of Gujarat. The perusal of the report shows that the Tribunal also took into consideration various technical literature before giving its Award.

## AWARD OF THE TRIBUNAL

The main parameters of the decision of the Tribunal were as under:

### A) DETERMINATION OF THE HEIGHT OF SARDAR SAROVAR DAM

The height of the Sardar Sarovar Dam was determined at FRL 455 ft. The Tribunal was of the view that the FRL +436 ft. was required for irrigation use alone. In order to generate power throughout the year, it would be necessary to provide all the live storage above MDDL for which an FRL +453 ft. with MDDL + 362 ft. would obtain gross capacity of 7.44 MAF. Therefore, the Tribunal was of the view that FRL of the Sardar Sarovar Dam should be +455 ft. providing gross storage of 7.70 MAF. It directed the State of Gujarat to take up and complete the construction of the dam.

### B) GEOLOGICAL AND SEISMOLOGICAL ASPECTS OF THE DAM SITE:

The Tribunal accepted the recommendations of the Standing Committee under Central Water & Power Commission that there should be seismic co-efficient of 0.10 g for the dam.

### C) RELIEF AND REHABILITATION:

The final Award contained directions regarding submergence, land acquisition and rehabilitation of displaced persons. The award defined the meaning of the land, oustee and family. The Gujarat Government was to pay to Madhya Pradesh and Maharashtra all costs including compensation, charges, expenses incurred by them for and in respect of compulsory acquisition of land. Further, the Tribunal had provided for rehabilitation of oustees and civic amenities to be provided to the oustees. The award also provided that if the State of Gujarat was unable to re-settle the oustees or the oustees being unwilling to occupy the area offered by the States, then the oustees will be re-settled by home State and all expenses for this were to be borne by Gujarat. An important mandatory provision regarding rehabilitation was the one contained in Clause XI Sub-clause IV(6)(ii) which stated that no submergence of any area would take place unless the oustees were rehabilitated.

### D) ALLOCATION OF THE NARMADA WATERS:

The Tribunal determined the utilizable quantum of water of the Narmada at Sardar Sarovar Dam site on the basis of 75% dependability at 28 MAF. It further ordered that out of the utilizable quantum of Narmada water, the allocation between the States should be as under:

Madhya Pradesh : 18.25 MAF Gujarat : 9.00 MAF Rajasthan : 0.50 MAF  
Maharashtra : 0.25 MAF

### E) PERIOD OF NON REVIEWABILITY OF CERTAIN AWARD TERMS:

The Award provided for the period of operation of certain clauses of the final order and decision of the Tribunal as being subject to review only after a period of 45 years from the date of the publication of the decision of the Tribunal in the official gazette. What is important to note however is that the Tribunal's decision contained in Clause II relating to determination of 75% dependable flow as 28 MAF was non-reviewable. The Tribunal decision of the determination of the utilizable quantum of Narmada water at Sardar Sarovar Dam site on the basis of 75% dependability at 28 MAF is not a clause which is included as a clause whose terms can be reviewed after a period of 45 years.

21. The Tribunal in its Award directed for the Constitution of an inter-State Administrative Authority i.e. Narmada Control Authority for the purpose of securing compliance with and implementation of the decision and directions of the Tribunal. The Tribunal also directed for Constitution of a Review Committee consisting of the Union Minister for Irrigation (now substituted by Union Minister for Water Resources) as its Chairperson and the Chief Ministers of Madhya Pradesh, Maharashtra, Gujarat and Rajasthan as its members. The Review Committee might review the decisions of the Narmada Control Authority and the Sardar Sarovar Construction Advisory Committee. The Sardar Sarovar Construction Advisory Committee headed by the Secretary, Ministry of Water Resources as its Chairperson was directed to be constituted for ensuring efficient, economical and early execution of the project.

22. Narmada Control Authority is a high powered committee having the Secretary, Ministry of Water Resources, Government of India as its Chairperson, Secretaries in the Ministry of Power, Ministry of Environment and Forests, Ministry of Welfare, Chief Secretaries of the concerned four States as Members. In addition thereto, there are number of technical persons like Chief Engineers as the members.

23. Narmada Control Authority was empowered to constitute one or more subcommittees and assign to them such of the functions and delegate such of its powers as it thought fit. Accordingly, the Narmada Control Authority constituted the following discipline based sub-groups:

- (i) Resettlement and Rehabilitation subgroup under the Chairmanship of Secretary, Ministry of Welfare;
- (ii) Rehabilitation Committee under Secretary, Minister of Welfare to supervise the rehabilitation process by undertaking visits to R&R sites and submergence villages.
- (iii) Environment Sub-group under the Chairmanship of Secretary, Ministry of Environment and Forests;
- (iv) Hydromet Sub-group under the Chairmanship of Member (Civil), Narmada Control Authority;
- (v) Power Sub-group under the Chairmanship of Member (Power) Narmada Control Authority;

(vi) Narmada main Canal Sub-committee under the chairmanship of Executive Member, Narmada Control Authority.

24. The Award allocated the available water resources of the Narmada river between the four States. Based on this allocation, an overall plan for their utilisation and development had been made by the States. Madhya Pradesh was the major sharer of the water. As per the water resources development plan for the basin it envisaged in all 30 major dams, 135 medium dam projects and more than 3000 minor dams. The major terminal dam at Sardar Sarovar was in Gujarat, the remaining 29 being in Madhya Pradesh. Down the main course of the river, the four major dams were the Narmada Sagar (now renamed as Indira Sagar), Omkareshwar and Maheshwar all in Madhya Pradesh and Sardar Sarovar in Gujarat. Rajasthan was to construct a canal in its territory to utilize its share of 0.5 MAP.

Relevant Details of the Sardar Sarovar Dam:

25. As a result of the Award of the Tribunal, the Sardar Sarovar Dam and related constructions, broadly speaking, are to comprise of the following:

- a) Main dam across the flow of the river with gates above the crest level to regulate the flow of water into the Narmada Main Canal.
- b) An underground River Bed Power through which a portion of the water is diverted to generate power (1200 MW). This water joins the main channel of the Narmada river downstream of the dam.
- c) A saddle dam located by the side of main reservoir through which water to the main canal system flows.
- d) A Canal Head Power House located at the toe of the saddle dam, through which the water flowing to the main canal system is to be used to generate power (250 MW).
- e) The main canal system known as Narmada main canal 458 KM. long which is to carry away the water meant for irrigation and drinking purposes to the canal systems of Gujarat and Rajasthan.

Expected benefits from the project:

26. The benefits expected to flow from the implementation of the Sardar Sarovar Project had been estimated as follows:

Irrigation: 17.92 lac hectare of land spread over 12 districts, 62 talukas and 3393 villages (75% of which is drought-prone areas) in Gujarat and 73000 hectares in the arid areas of Banner and Jalore districts of Rajasthan.

Drinking Water facilities to 8215 villages and 135 urban centers in Gujarat both within and outside command. These include 5825 villages and 100 urban centers of Saurashtra

and Kachchh which are outside the command. In addition, 881 villages affected due to high contents of fluoride will get potable water.

Power Generation: 1450 Megawatt.

Annual Employment Potential:

7 lac man-years during construction

6 lac man-years in post construction.

Protection against advancement of little Rann of Kutch and Rajasthan desert.

Flood protection to riverine reaches measuring 30,000 hac, 210 villages including Bharuch city and 7.5 lac population.

Benefits to:

- a) Dhumkhal Sloth Bear Sanctuary.
- b) Wild Ass Sanctuary in Little Rann of Kachchh
- c) Black Buck Sanctuary at Velavadar.
- d) Great Indian Bustard Sanctuary in Kachchh
- e) Nal Sarovar Bird Sanctuary.

Development of fisheries: Deepening of all village tanks of command which will increase their capacities, conserve water, will recharge ground water, save acquisition of costly lands for getting earth required for constructing canal banks and will reduce health hazard.

Facilities of sophisticated communication system in the entire command.

Increase in additional annual production on account of

(Rs. in crores) Agricultural production 900 Domestic water supply 100  
Power Generation 440 Total 1400

#### POST AWARD CLEARANCES:

27. In order to meet the financial obligations, consultations had started in 1978 with the World Bank for obtaining a loan. The World Bank sent its Reconnaissance Mission to visit the project site and carried out the necessary inspection. In May, 1985, the Narmada Dam and Power Project and Narmada Water Delivery and Drainage Project were sanctioned by the World Bank under International Development Agency, credit No.

1552. Agreement in this respect was signed with the Bank on 10.5.1985 and credit was to be made available from 6th January, 1986.

28. With regard to the giving environmental clearance, a lot of discussion took place at different levels between the Ministry of Water Resources and the Ministry of Environment. Ultimately on 24th June, 1987 the Ministry of Environment and Forests, Government of India accorded clearance subject to certain conditions. The said Office Memorandum containing the environmental clearance reads as follows:

#### OFFICE MEMORANDUM

Subject: Approval of Narmada Sagar Project, Madhya Pradesh and Sardar Sarovar Project, Gujarat from environmental angle.

The Narmada Sagar Project, Madhya Pradesh and Sardar Sarovar Project Gujarat have referred to this Department for environmental clearance.

2. On the basis of examination of details on these projects by the Environmental Appraisal Committee for River Valley Projects and discussions with the Central and State authorities the following details were sought from the project authorities:

1. Rehabilitation Master Plan
2. Phased Catchment Area Treatment Scheme
3. Compensatory Afforestation Plan
4. Command Area Development
5. Survey of Flora and Fauna
6. Carrying capacity of surrounding area.
7. Seismicity and
8. Health Aspects

3. Field surveys are yet to be completed. The first set of information has been made available and complete details have been assured to be furnished in 1989.

4. The NCA has been examined and its terms of reference have been amplified to ensure that environmental safeguard measures are planned and implemented in depth and in its pace of implementation pari passu with the progress of work on the projects.

5. After taking into account all relevant facts the Narmada Sagar Project, Madhya Pradesh and the Sardar Sarovar Project, Gujarat State are hereby accorded environmental clearance subject to the following conditions.

i) The Narmada Control Authority (NCA) will ensure that environmental safeguard measures are planned and implemented pari passu with progress of work on project.

ii) The detailed surveys/studies assured will be carried out as per the schedule proposed and details made available to the Department for assessment.

iii) The Catchment Area treatment programme and the Rehabilitation plans be so drawn as to be completed ahead of reservoir filling.

iv) The Department should be kept informed of progress on various works periodically.

6. Approval under Forest (Conservation) Act, 1980 for diversion of forest land will be obtained separately. No work should be initiated on forest area prior to this approval.

7. Approval from environmental and forestry angles for any other irrigation, power or development projects in the Narmada Basin should be obtained separately.

Sd/-

(S.MUDGAL)  
DIRECTOR(IA)

29. In November, 1987 for monitoring and implementation of various environmental activities effectively, an independent machinery of Environment Sub-Group was created by Narmada Control Authority. This Sub-Group was appointed with a view to ensure that the environmental safeguards were properly planned and implemented. This Sub-Group is headed by the Secretary, Ministry of Environment and Forests, Government of India, as its Chairperson and various other independent experts in various fields relating to environment as its members.

30. After the clearance was given by the Ministry of Environment and Forests, the Planning Commission, on 5th October, 1988, approved investment for an estimated cost of Rs. 6406/- crores with the direction to comply with the conditions laid down in the environment clearance accorded on 24th June, 1987.

31. According to the State of Gujarat and Union of India, the studies as required to be done by the O.M. dated 24th June, 1987, whereby environmental clearance was accorded, have been undertaken and the requisite work carried out. The construction of the dam had commenced in 1987.

32. In November, 1990 one Dr. B.D. Sharma wrote a letter to this Court for setting up of National Commission for Scheduled Castes and Scheduled Tribes including proper

rehabilitation of oustecs of Sardar Sarovar Dam. This letter was entertained and treated as a writ petition under Article 32 of the Constitution being Writ Petition No. 1201 of 1990.

33. On 20th September, 1991, this Court in the said Writ Petition bearing No. 1201 of 1990 gave a direction to constitute the Committee headed by Secretary (Welfare) to monitor the rehabilitation aspects of Sardar Sarovar Project.

34. The Narmada Bachao Andolan, the petitioner herein, had been in the forefront of agitation against the construction of the Sardar Sarovar Dam. Apparently because of this, the Government of India, Ministry of Water Resources vide Office Memorandum dated 3rd August, 1993 constituted a Five Member Group to be headed by Dr. Jayant Patil, Member, Planning Commission and Dr. Vasant Gowarikar, Mr. Ramaswamy R. Iyer, Mr. L.C. Jain and Dr. V.C. Kulandaiswamy as its members to continue discussions with the Narmada Bachao Andolan on issues relating to the Sardar Sarovar Project. Three months time was given to this Group to submit its report.

35. During this time, the construction of the dam continued and on 22nd February, 1994 the Ministry of Water Resources conveyed its decision regarding closure of the construction sluices. This decision was given effect to and on 23rd February, 1994 closure of construction sluices was effected.

36. In April, 1994 the petitioner filed the present writ petition inter alia praying that the Union of India and other respondents should be restrained from proceeding with the construction of the dam and they should be ordered to open the aforesaid sluices. It appears that the Gujarat High Court had passed an order staying the publication of the report of the Five Member Group established by the Ministry of Water Resources. On 15th November, 1994, this Court called for the report of the Five Member Group and the Government of India was also directed to give its response to the said report.

37. By order dated 13th December, 1994, this Court directed that the report of the Five Member Group be made public and responses to the same were required to be filed by the States and the report was to be considered by the Narmada Control Authority. This Report was discussed by the Narmada Control Authority on 2nd January, 1995 wherein disagreement was expressed by the State of Madhya Pradesh on the issues of height and hydrology. Separate responses were filed in this Court to the said Five Member Group Report by the Government of India and the Governments of Gujarat and Madhya Pradesh.

38. On 24th January, 1995, orders were issued by this Court to the Five Member Group for submitting detailed further report on the issues of:

a) Height

b) Hydrology

c) Resettlement and Rehabilitation and environmental matters.

Dr. Patil who had headed the Five Member Group expressed his unwillingness to continue on the ground of ill-health and on 9th February, 1995, this Court directed the remaining four members to submit their report on the aforesaid issues.

39. On 17th April, 1985 the Four Member Group submitted its report. The said report was not unanimous, unlike the previous one, and the Members were equally divided. With regard to hydrology, Professor V.C. Kulandaiswamy and Dr. Vasant Gowariker were for adoption of 75% dependable flow of 27 MAP for the design purpose, on the basis of which the Tribunal's Award had proceeded. On the other hand, Shri Ramaswamy R. Iyer and Shri L.C. Jain were of the opinion that for planning purposes, it would be appropriate to opt for the estimate of 23 MAF. With regard to the question relating to the height of the dam, the views of Dr. Gowariker were that the Tribunal had decided FRL 455 ft. after going into exhaustive details including social, financial and technical aspects of the project and that it was not practicable at the stage when an expenditure of Rs. 4000 crores had been incurred and an additional contract amounting to Rs. 2000 crores entered into and the various parameters and features of the project having been designed with respect to FRL 455 ft. that there should be a reduction of the height of the dam. The other three Members proceeded to answer this question by first observing as follows:

We must now draw conclusions from the foregoing analysis, but a preliminary point needs to be made. The SSP is now in an advanced stage of construction, with the central portion of the dam already raised to 80 m.; the canal constructed upto a length of 140 Kms.; and most of the equipment for various components of the project ordered and some of it already wholly or partly manufactured. An expenditure of over Rs. 3800 crores is said to have been already incurred on the project; significant social costs have also been incurred in terms of displacement and rehabilitation. The benefits for which these costs have been and are being incurred have not materialised yet in that situation, any one with a concern for keeping project costs under check and for ensuring the early commencement of benefits would generally like to accelerate rather than retard the completion of the project as planned. If any suggestion for major changes in the features of the project at this juncture is to be entertained at all, there will have to be the most compelling reasons for doing so.

40. It then addressed itself to the question whether there were any compelling reasons. The answer, they felt, depended upon the view they took on the displacement and rehabilitation problem. The two views which, it examined, were, firstly whether the problem of displacement and rehabilitation was manageable and, if it was, then there would be no case of reduction in the height. On the other hand, if relief and rehabilitation was beset with serious and persistent problems then they might be led to the conclusion that there should be an examination of the possibility of reducing submergence and displacement to a more manageable size. These three Members then considered the question of the magnitude of the relief and rehabilitation problem. After taking into consideration the views of the States of Madhya Pradesh and Gujarat, the three Members observed as follows:

We find that the Government of India's idea of phased construction outlined earlier offers a practical solution; it does not prevent the FRL from being raised to 455' in due course if the necessary conditions are satisfied; and it enables the Government of Madhya Pradesh to take stock of the position at 436' and call a halt if necessary. We would, however, reiterate the presumption expressed in paragraph 3.9.2. above namely that no delinking of construction from R&R is intended and that by "phased construction" the Government of India do not mean merely tiered construction which facilitates controlled submergence in phases. We recommend phased construction in a literal sense, that is to say, that at each phase it must be ensured that the condition of advance completion of R&R has been fulfilled before proceeding to the next phase (i.e. the installation of the next tier of the gates). This would apply even to the installation of the first tier. "Judicious operation of the gates" (while necessary) cannot be a substitute for the aforesaid condition.

The possibility of further construction when the FRL 436 ft. was reached or a stoppage at that stage was left open by the Members. With regard to the environment it observed that this subject had been by and large covered in the first FMG report.

#### RIVAL CONTENTIONS

41. On behalf of the petitioners, the arguments of Sh. Shanti Bhushan, learned senior counsel, were divided into four different heads, namely, general issues, issues regarding environment, issues regarding relief and rehabilitation and issues regarding review of Tribunal's Award. The petitioners have sought to contend that it is necessary for some independent judicial authority to review the entire project, examine the current best estimates of all costs (social, environmental, financial), benefits and alternatives in order to determine whether the project is required in its present form in the national interest or whether it needs to be re-structured/modified. It is further the case of the petitioners that no work should proceed till environment impact assessment has been fully done and its implications for the projects viability being assessed in a transparent and participatory manner. This can best be done, it is submitted, as a part of the comprehensive review of the project.

42. While strongly championing the cause of environment and of the tribals who are to be ousted as a result of the submergence, it was submitted that the environmental clearance which was granted in 1987 was without any or proper application of mind as complete studies in that behalf were not available and till this is done the project should not be allowed to proceed further. With regard to relief and rehabilitation a number of contentions were raised with a view to persuade this Court that further submergence should not take place and the height of the dam, if at all it is to be allowed to be constructed, should be considerably reduced as it is not possible to have satisfactory relief and rehabilitation of the oustees as per the Tribunal's Award as a result of which their fundamental rights under Article 21 would be violated.

43. While the State of Madhya Pradesh has partly supported the petitioners inasmuch as it has also pleaded for reduction in the height of the dam so as to reduce the extent of submergence and the consequent displacement, the other States and the Union of India

have refuted the contentions of the petitioners and of the State of Madhya Pradesh. While accepting that initially the relief and rehabilitation measures had lagged behind but now adequate steps have been taken to ensure proper implementation of relief and rehabilitation at least as per the Award. The respondents have, while refuting other allegations, also questioned the bona fides of the petitioners in filing this petition. It is contended that the cause of the tribals and environment is being taken up by the petitioners not with a view to benefit the tribals but the real reason for filing this petition is to see that a high dam is not erected per se. It was also submitted that at this late stage this Court should not adjudicate on the various issues raised specially those which have been decided by the Tribunal's Award.

44. We first propose to deal with some legal issues before considering the various submissions made by Sh. Shanti Bhushan regarding environment, relief and rehabilitation, alleged violation of rights of the tribals and the need for review of the project.

LATCHES(sic)

45. As far as the petitioner is concerned, it is an anti-dam organisation and is opposed to the construction of the high dam. It has been in existence since 1986 but has chosen to challenge the clearance given in 1987 by filing a writ petition in 1994. It has sought to contend that there was lack of study available regarding the environmental aspects and also because of the seismicity, the clearance should not have been granted. The rehabilitation packages are dissimilar and there has been no independent study or survey done before decision to undertake the project was taken and construction started.

46. The project, in principle, was cleared more than 25 years ago when the foundation stone was laid by late Pandit Jawahar Lal Nehru. Thereafter, there was an agreement of the four Chief Ministers in 1974, namely, the Chief Ministers of Madhya Pradesh, Gujarat, Maharashtra and Rajasthan for the project to be undertaken. Then dispute arose with regard to the height of the dam which was settled with the award of the Tribunal being given in 1978. For a number of years, thereafter, final clearance was still not given. In the meantime some environmental studies were conducted. The final clearance was not given because of the environmental concern which is quite evident. Even though complete data with regard to the environment was not available, the Government did in 1987 finally give environmental clearance. It is thereafter that the construction of the dam was undertaken and hundreds of crores have been invested before the petitioner chose to file a writ petition in 1994 challenging the decision to construct the dam and the clearance as was given. In our opinion, the petitioner which had been agitating against the dam since 1986 is guilty of latches in not approaching the Court at an earlier point of time.

47. When such projects are undertaken and hundreds of crores of public money is spent, individual or organisations in the garb of PIL cannot be permitted to challenge the policy decision taken after a lapse of time. It is against the national interest and contrary to the established principles of law that decisions to undertake developmental projects are

permitted to be challenged after a number of years during which period public money has been spent in the execution of the project.

48. The petitioner has been agitating against the construction of the dam since 1986, before environmental clearance was given and construction started. It has, over the years, chosen different paths to oppose the dam. At its instance a Five Member Group was constituted, but its report could not result in the stoppage of construction pari passu with relief and rehabilitation measures. Having failed in its attempt to stall the project the petitioner has resorted to court proceedings by filing this writ petition long after the environmental clearance was given and construction started. The pleas relating to height of the dam and the extent of submergence, environment studies and clearance, hydrology, seismicity and other issues, except implementation of relief and rehabilitation, cannot be permitted to be raised at this belated stage.

49. This Court has entertained this petition with a view to satisfy itself that there is proper implementation of the relief and rehabilitation measures at least to the extent they have been ordered by the Tribunal's Award. In short it was only the concern of this Court for the protection of the fundamental rights of the oustees under Article 21 of the Constitution of India which led to the entertaining of this petition. It is the Relief and Rehabilitation measures that this Court is really concerned with and the petition in regard to the other issues raised is highly belated. Though it is, therefore, not necessary to do so, we however presently propose to deal with some of the other issues raised.

#### AWARD-BINDING ON THE STATES

50. It has been the effort on the part of the petitioners to persuade this Court to decide that in view of the difficulties in effectively implementing the Award with regard to relief and rehabilitation and because of the alleged adverse impact the construction of the dam will have on the environment, further construction of the dam should not be permitted. The petitioners support the contention on behalf of the State of Madhya Pradesh to the effect that the height of the dam should be reduced in order to decrease the number of oustees. In this case, the petitioners also submit that with regard to hydrology, the adoption of the figure 27 MAF is not correct and the correct figure is 23 MAF and in view thereof the height of the dam need not be 455 feet.

51. The Tribunal in this Award has decided a number of issues which have been summarised hereinabove. The question which arises is as to whether it is open to the petitioners to directly or indirectly challenge the correctness of the said decision. Briefly stated the Tribunal had in no uncertain terms come to the conclusion that the height of the dam should be 455 ft. It had rejected the contention of the State of Madhya Pradesh for fixing the height at a lower level. At the same time in arriving at this figure, it had considered the relief and rehabilitation problems and had issued directions in respect thereof. Any issue which has been decided by the Tribunal would, in law, be binding on the respective states. That this is so has been recently decided by a Constitution Bench of this Court in *The State of Karnataka v. State of Andhra Pradesh* and Ors. 2000(3) Scale 505. That was a case relating to a water dispute regarding inter-State river Krishna

between the three riparian States and in respect of which the Tribunal constituted under the Inter-State Water Disputes Act, 1956 had given an Award. Dealing with the Article 262 and the scheme of the Inter-State Water Disputes Act, this Court at page 572 observed as follows:

The inter-State Water Disputes Act having been framed by the Parliament under Article 262 of the Constitution in a complete Act by itself and the nature and character of a decision made thereunder has to be understood in the light of the provisions of the very Act itself. A dispute or difference between two or more State Governments having arisen which is a water dispute under Section 2(C) of the Act and complaint to that effect being made to the Union Government under Section 3 of the said Act the Central Government constitutes a Water Disputes Tribunal for the adjudication of the dispute in question, once it forms the opinion that the dispute cannot be settled by negotiations. The Tribunal thus constituted, is required to investigate the matters referred to it and then forward to the Central Government a report setting out the facts as found by him and giving its decision on it as provided under Sub-section (2) of Section 5 of the Act. On consideration of such decision of the Tribunal if the Central Government or any State Government is of the opinion that the decision in question requires explanation or that guidance is needed upon any point not originally referred to the Tribunal then within three months from the date of the decision, reference can be made to the Tribunal for further consideration and the said Tribunal then forwards to the Central Government a further report giving such explanation or guidance as it deems fit. Thereby the original decision of the Tribunal is modified to the extent indicated in the further decision as provided under Section 5(3) of the Act. Under Section 6 of the Act the Central Government is duty bound to publish the decision of the Tribunal in the Official Gazette whereafter the said decision becomes final and binding on the parties to the dispute and has to be given effect to, by them. The language of the provisions of Section 6 is clear and unambiguous and unequivocally indicates that it is only the decision of the Tribunal which is required to be published in the Official Gazette and on such publication that decision becomes final and binding on the parties.

Once the Award is binding on the States, it will not be open to a third party like the petitioners to challenge the correctness thereof. In terms of the Award, the State of Gujarat has a right to construct a dam upto the height of 455 ft. and, at the same time, the oustces have a right to demand relief and re-settlement as directed in the Award. We, therefore, do not propose to deal with any contention which, in fact, seems to challenge the correctness of an issue decided by the. Tribunal.

#### GENERAL ISSUES RELATING TO DIS-PLACEMENT OF TRIBALS AND ALLEGED VIOLATION OF THE RIGHTS UNDER Article 21 OF THE CONSTITUTION:

52. The submission of Sh. Shanti Bhushan, learned senior counsel for the petitioners was that the forcible displacement of tribals and other marginal farmers from their land and other sources of livelihood for a project which was not in the national or public interest was a violation of their fundamental rights under Article 21 of the Constitution of India

read with ILO Convention 107 to which India is a signatory. Elaborating this contention, it was submitted that this Court had held in a large number of cases that international treaties and covenants could be read into the domestic law of the country and could be used by the courts to elucidate the interpretation of fundamental rights guaranteed by the Constitution. Reliance in support of this contention was placed on *Gramophone Co. of India Ltd. v. B.B. Pandey* [MANU/SC/0187/1984](#), *PUCL v. Union of India* [MANU/SC/0274/1997](#) and *CERC v. Union of India* [MANU/SC/0175/1995](#). In this connection, our attention was drawn to the ILO Convention 107 which stipulated that tribal populations shall not be removed from their lands without their free consent from their habitual territories except in accordance with national laws and regulations for reasons relating to national security or in the interest of national economic development. It was further stated that the said Convention provided that in such cases where removal of this population is necessary as an exceptional measure, they shall be provided with lands of quality at least equal to that of lands previously occupied by them, suitable to provide for their present needs and future development. Sh. Shanti Bhushan further contended that while Sardar Sarovar Project will displace and have an impact on thousands of tribal families it had not been proven that this displacement was required as an exceptional measure. He further submitted that given the seriously flawed assumptions of the project and the serious problems with the rehabilitation and environmental mitigation, it could not be said that the project was in the best national interest. It was also submitted that the question arose whether the Sardar Sarovar project could be said to be in the national and public interest in view of its current best estimates of cost, benefits and evaluation of alternatives and specially in view of the large displacement of tribals and other marginal farmers involved in the project. Elaborating this contention, it was contended that serious doubts had been raised about the benefits of the project - the very rationale which was sought to justify the huge displacement and the massive environmental impacts etc. It was contended on behalf of the petitioners that a project which was sought to be justified on the grounds of providing a permanent solution to water problems of the drought prone areas of Gujarat would touch only the fringes of these areas, namely, Saurashtra and Kutch and even this water, which was allocated on paper, would not really accrue due to host of reasons. It was contended that inspite of concentrating on small scale decentralized measures which were undertaken on a large scale could address the water problem of these drought prone areas. Huge portions of the State resources were being diverted to the Sardar Sarovar Project and as a result the small projects were ignored and the water problem in these areas persists. It was submitted that the Sardar Sarovar Project could be restructured to minimise the displacement.

53. Refuting the aforesaid arguments, it has been submitted on behalf of the Union of India and the State of Gujarat that the petitioners have given a highly exaggerated picture of the submergence and other impacts of this project. It was also submitted that the petitioner's assertion that there was large-scale re-location and uprooting of tribals was not factually correct. According to the respondents, the project would affect only 245 villages in Gujarat, Maharashtra and Madhya Pradesh due to pondage and backwater effect corresponding to 1 in 100 year flood. The State-wise break up of affected villages and the number of project affected families (PAFs) shows that only four villages would be fully affected (three in Gujarat and one in Madhya Pradesh) and 241 would be

partially affected (16 in Gujarat, 33 in Maharashtra and 192 in Madhya Pradesh). The total project affected families who would be affected were 40827. The extent of the submergence was minimum in the State of Madhya Pradesh. The picture of this submergence as per the Government of Madhya Pradesh Action Plan of 1993 is as follows:

Abadi will be fully submerged in 39 villages and partially in 116 villages, agricultural land will be affected upto 10% in 82 villages, 11 to 25% in 32 villages, 26 to 50% in 30 villages, 51 to 75% in 14 villages, 76 to 90% in 4 villages and 100% in only 1 village. In 21 villages, only abadi will be affected and Government land only in 9 villages. Thus, in most of the villages, submergence is only partial.

The submergence area of the SSP can be divided into two areas:

i) Fully tribal, hilly area covering the initial reach of about 105 villages with mainly subsistence economy. It includes 33 villages of Maharashtra, 19 of Gujarat and about 53 of Madhya Pradesh.

(ii) Mixed population area in the plains of Nimad, with a well developed economy and connected to the mainstream. This area includes about 140 villages in Madhya Pradesh.

These two areas have quite different topographic and habitation features which result in totally different types of submergence impacts. The state of the hilly area to be affected by its submergence and where most of the tribal population exists is described by the Government of Madhya Pradesh Action Plan, 1993 as follows:

The Narmada flows in hilly gorge from the origin to the Arabian Sea. The undulating hilly terrain in the lower submergence area of Sardar Sarovar Project exhibit naked hills and depleted forests. Even small forest animals are very rarely seen because of lack of forest cover and water. The oft quoted symbiotic living with forests is a misnomer in this area because the depleted forests have nothing to offer but fuel wood. Soil is very poor mostly disintegrated, granite and irrigation is almost nil due to undulating and hilly land. Anybody visiting this area finds the people desperately sowing even in the hills with steep gradient. Only one rain fed crop of mostly maize is sown and so there is no surplus economy. PAPS inhabiting these interior areas find generous rehabilitation and resettlement packages as a means to assimilate in the mainstream in the valley.

54. In 193 villages of Madhya Pradesh to be affected by the project, a very high proportion of the houses would be affected whereas the land submergence was only 14.1%. The reason for this is that the river bed is a deep gorge for about 116 km. upstream of the dam and as a result the reservoir will be long (214 km), narrow (average width of 1.77 km) and deep. The result of this is that as one goes further upstream, the houses on the river banks are largely affected while agricultural land which is at a distance from the river banks is spared. A majority of 33014 families of Madhya Pradesh (which would include 15018 major sons) would lose only their houses and not agricultural lands would be required to be resettled in Madhya Pradesh by constructing

new houses in the new abadi. According to the Award, agricultural land was to be allotted only if the project affected families lost 25% or more of agricultural land and on this basis as per the Government of Madhya Pradesh, only 830 project affected families of Madhya Pradesh were required to be allotted agricultural land in Madhya Pradesh.

55. According to the Government of Gujarat the tribals constituted bulk of project affected families who would be affected by the dam in Gujarat and Maharashtra, namely, 97% and 100% respectively. Out of the oustees of project affected families of Madhya Pradesh, tribals constituted only 30% while 70% were non-tribals. The total number of tribal project affected families were 17725 and out of these, 9546 are already re-settled. It was further the case of the respondents that in Madhya Pradesh the agricultural land of the tribal villages was affected on an average to the extent of 28% whereas in the upper reaches i.e. Nimad where the agriculture was advanced, the extent of submergence, on an average, was only 8.5%. The surveys conducted by HMS Gour University (Sagar), the Monitoring and Evaluation Agency set up by the Government of Madhya Pradesh, reveal that the major resistance to relocation was from the richer, non-tribal families of Nimad who feared shortage of agriculture labour if the landless labourers from the areas accepted re-settlement. In the Bi-Annual report, 1996 of HMS Gour University, Sagar, it was observed as follows:

The pre-settlement study of submerging villages has revealed many startling realities. Anti-dam protagonists presents a picture that tribals and backward people are the worst sufferers of this kind of development project. This statement is at least not true in case of the people of these five affected villages. Though, these villages comprise a significant population of tribals and people of weaker sections, but majority of them will not be a victim of displacement. Instead, they will gain from shifting. The present policy of compensation is most beneficial for the lot of weaker section. These people are living either as labourers or marginal farmers. The status of oustee will make them the owner of two hectares of land and a house. In fact, it is the land-owning class which is opposing the construction of dam by playing the card of tribals and weaker sections. The land-owners are presently enjoying the benefit of cheap labour in this part of the region. Availability of cheap labour is boon for agricultural activities. This makes them to get higher return with less inputs.

It is apparent that the tribal population affected by the submergence would have to move but the rehabilitation package was such that the living condition would be much better than what it was before there. Further more though 140 villages of Madhya Pradesh would be affected in the plains of Nimad, only 8.5% of the agricultural land of these villages shall come under submergence due to SSP and as such the said project shall have only a marginal impact on the agricultural productivity of the area.

56. While accepting the legal proposition that International Treaties and Covenants can be read into the domestic laws of the country the submission of the respondents was that Article 12 of the ILO Convention No. 107 stipulates that "the populations concerned shall not be removed without their free consent from their habitual territories except in

accordance with national laws and regulations relating to national security, or in the interest of national economic development or of the health of the said populations".

57. The said Article clearly suggested that when the removal of the tribal population is necessary as an exceptional measure, they shall be provided with land of quality atleast equal to that of the land previously occupied by them and they shall be fully compensated for any resulting loss or injury. The rehabilitation package contained in the Award of the Tribunal as improved further by the State of Gujarat and the other States prima facie shows that the land required to be allotted to the tribals is likely to be equal, if not better, than what they had owned.

58. The allegation that the said project was not in the national or public interest is not correct seeing to the need of water for burgeoning population which is most critical and important. The population of India, which is now one billion, is expected to reach a figure between 1.5 billion and 1.8 billion in the year 2050, would necessitate the need of 2788 billion cubic meter of water annually in India to be above water stress zone and 1650 billion cubic metre to avoid being water scarce country. The main source of water in India is rainfall which occurs in about 4 months in a year and the temporal distribution of rainfall is so uneven that the annual averages have very little significance for all practical purposes. According to the Union of India, one third of the country is always under threat of drought not necessarily due to deficient rainfall but many times due to its uneven occurrence. To feed the increasing population, more food grain is required and effort has to be made to provide safe drinking water, which, at present, is a distant reality for most of the population specially in the rural areas. Keeping in view the need to augment water supply, it is necessary that water storage capacities have to be increased adequately in order to ward off the difficulties in the event of monsoon failure as well as to meet the demand during dry season. It is estimated that by the year 2050 the country needs to create storage of at least 600 billion cubic meter against the existing storage of 174 billion cubic meter.

59. Dams play a vital role in providing irrigation for food security, domestic and industrial water supply, hydroelectric power and keeping flood waters back. On full development, the Narmada has a potential of irrigating over 6 million hectares of land and generating 3000 mw of power. The present stage of development is very low with only 3 to 4 Maf of waters being used by the party States for irrigation and drinking water against 28 Maf availability of water at 75% dependability as fixed by NWDT and about 100 MW power developed 85% of the waters are estimated as flowing waste to sea. The project will provide safe and clean drinking water to 8215 villages and 135 towns in Gujarat and 131 villages in desert areas of Jalore district of Rajasthan, though against these only 241 villages are getting submerged partially and only 4 villages fully due to the project.

60. The cost and benefit of the project were examined by the World Bank in 1990 and the following passage speaks for itself:

The argument in favour of the Sardar Sarovar Project is that the benefits are so large that they substantially outweigh the costs of the immediate human and environmental disruption. Without the dam, the long term costs for people would be much greater and lack of an income source for future generations would put increasing pressure on the environment. If the waters of the Narmada river continue to flow to the sea unused there appears to be no alternative to escalating human deprivation, particularly in the dry areas of Gujarat. The project has the potential to feed as many as 20 million people, provide domestic and industrial water for about 30 million, employ about 1 million, and provide valuable peak electric power in an area with high unmet power demand (farm pumps often get only a few hours power per day). In addition, recent research shows substantial economic "multiplier" effects (investment and employment triggered by development) from irrigation development. Set against the futures of about 70,000 project affected people, even without the multiplier effect, the ratio of beneficiaries to affected persons is well over 100:1....,

There is merit in the contention of the respondents that there would be a positive impact on preservation of ecology as a result from the project. The SSP would be making positive contribution for preservation of environment in several ways. The project by taking water to drought-prone and arid parts of Gujarat and Rajasthan would effectively arrest ecological degradation which was returning to make these areas inhabitable due to salinity ingress, advancement of desert, ground water depiction, fluoride and nitrite affected water and vanishing green cover. The ecology of water scarcity areas is under stress and transfer of Narmada water to these areas will lead to sustainable agriculture and spread of green cover. There will also be improvement of fodder availability which will reduce pressure on biodiversity and vegetation. The SSP by generating clean eco-friendly hydropower will save the air pollution which would otherwise take place by thermal generation power of similar capacity.

61. The displacement of the tribals and other persons would not per se result in the violation of their fundamental or other rights. The effect is to see that on their rehabilitation at new locations they are better off than what they were. At the rehabilitation sites they will have more and better amenities than which they enjoyed in their tribal hamlets. The gradual assimilation in the main stream of the society will lead to betterment and progress.

## ENVIRONMENTAL ISSUES

62. The four issues raised under this head by Sh. Shanti Bhushan are as under:

I. Whether the execution of a large project, having diverse and far reaching environmental impact, without the proper study and understanding of its environmental impact and without proper planning of mitigative measures is a violation of fundamental rights of the affected people guaranteed under Article 21 of the Constitution of India?

II. Whether the diverse environmental impacts of the Sardar Sarovar Project have been properly studied and understood?

III. Whether any independent authority has examined the environmental costs and mitigative measures to be undertaken in order to decide whether the environmental costs are acceptable and mitigative measures practical?

IV. Whether the environmental conditions imposed by the Ministry of Environment have been violated and if so, what is the legal effect of the violations?

63. It was submitted by Sh. Shanti Bhushan that a large project having diverse and far reaching environmental impacts in the concerned States would require a proper study and understanding of the environmental impacts. He contended that the study and planning with regard to environmental impacts must precede construction. According to Sh. Shanti Bhushan, when the environmental clearance was given in 1987, proper study and analysis of the environmental impacts and mitigative measures, which were required to be taken, were not available and, therefore, this clearance was not valid. The decision to construct the dam was stated to be political one and was not a considered decision after taking into account the environmental impacts of the project. The execution of SSP without a comprehensive assessment and evaluation of its environmental impacts and a decision regarding its acceptability was alleged to be a violation of the rights of the affected people under Article 21 of the Constitution of India. It was further submitted that no independent authority has examined vehemently the environmental costs and mitigative measures to be undertaken in order to decide whether the environmental costs are acceptable and mitigative measures practical. With regard to the environmental clearance given in June, 1987, the submission of Sh. Shanti Bhushan was that this was the conditional clearance and the conditions imposed by the Ministry of Environment and Forests had been violated. The letter granting clearance, it was submitted, disclosed that even the basic minimum studies and plans required for the environmental impact assessment had not been done. Further more it was contended that in the year 1990, as the deadline for completion of the studies was not met, the Ministry of Environment and Forests had declared that the clearance had lapsed. The Secretary of the said Ministry had requested the Ministry of Water Resources to seek extension of the clearance but ultimately no extension was sought or given and the studies and action plans continued to lag to the extent that there was no comprehensive environmental impact assessment of the project, proper mitigation plans were absent and the costs of the environmental measures were neither fully assessed nor included in the project costs. In support of his contentions, Sh. Shanti Bhushan relied upon the report of a Commission called the Independent Review or the Morse Commission. The said Commission had been set up by the World Bank and it submitted its report in June, 1992. In its report, the Commission had adversely commented on practically all aspects of the project and in relation to environment, it was stated as under:

Important assumptions upon which the projects are based are now questionable or are known to be unfounded. Environmental and social trade-off have been made, and continue to be made, without a full understanding of the consequences. As a result, benefits tend to be over-stated, while social and environmental costs are frequently understated. Assertions have been substituted for analysis.

We think that the Sardar Sarovar Projects as they stand are flawed, that resettlement and rehabilitation of all those displaced by the projects is not possible under the prevailing circumstances, and that the environmental impacts of the projects have not been properly considered or adequately addressed.

The history of environmental aspects of Sardar Sarovar is a history of non-compliance. There is no comprehensive impact statement. The nature and magnitude of environmental problems and solutions remain elusive.

64. Sh. Shanti Bhushan submitted that it had become necessary for some independent judicial authority to review the entire project, examine the current best estimates of all costs (social, environmental, financial), benefits and alternatives in order to determine whether the project is required in its present form in the national interest, or whether it needs to be restructured/modified.

65. Sh. Shanti Bhushan further submitted that environmental impacts of the projects were going to be massive and full assessment of these impacts had not been done. According to him the latest available studies show that studies and action plans had not been completed and even now they were lagging behind pari passu. It was also contended that mere listing of the studies does not imply that everything is taken care of. Some of the studies were of poor quality and based on improper data and no independent body had subjected these to critical evaluation.

RE: ENVIRONMENTAL CLEARANCE:

66. As considerable stress was laid by Sh. Shanti Bhushan challenging the validity of the environmental clearance granted in 1987 inter alia on the ground that it was not preceded by adequate studies and it was not a considered opinion and there was non-application of mind while clearing the project, we first propose to deal with the contention.

67. The events after the Award and upto the environmental clearance granted by the Government vide its letter dated 24th June, 1987 would clearly show that some studies, though incomplete, had been made with regard to different aspects of the environment. Learned Counsel for the respondents stated that in fact on the examination of the situation, the claim made with regard to the satisfactory progress was not correct. In order to carry out the directions in the Award about the setting up of an authority, the Inter-State Water Disputes Act, 1956 was amended and Section 6-A was inserted to set out how a statutory body could be constituted under the Act. On 10th September, 1980 in exercise of the powers conferred by Section 6-A of the Act the Central Government framed a scheme, constituted the Narmada Control Authority to give effect to the decision of the Award.

68. In January, 1980, the Government of Gujarat submitted to the Central Water Commission a detailed project report in 14 volumes. This was an elaborate report and dealt with various aspects like engineering details, canal systems, geology of area, coverage of command area etc. On 15th February, 1980 the Central Water Commission

referred SSP to the then Department of Environment in Department of Science & Technology. At that point of time, environmental clearance was only an administrative requirement. An environmental checklist was forwarded to Government of Gujarat on 27th February, 1980 which sought to elucidate information including following ecological aspects:

- i) Excessive sedimentation of the reservoir
- ii) Water logging
- iii) Increase in salinity of the ground water
- iv) Ground water recharge
- v) Health hazard-water borne diseases, industrial pollution etc.
- vi) Submergence of important minerals
- vii) Submergence of monuments
- viii) Fish culture and aquatic life
- ix) Plant life-forests
- x) Life of migratory birds
- xi) National Park and Sanctuaries
- xii) Seismicity due to filling of reservoir

The Government of Gujarat accordingly submitted information from September, 1980 till March, 1983. The information was also submitted on physio-social and economic studies for Narmada Command Area covering cropping pattern, health aspects, water requirement etc. A note of influence of Navagam dam on fish yield including impact on downstream fisheries was also submitted.

69. The techno-economic appraisal of the project was undertaken by the Central Water Commission which examined water availability, command area development, construction etc. The project was considered in the 22nd meeting of the Technical Advisory Committee on Irrigation, Flood Control and Multi-purpose projects held on 6.1.1983 and found it acceptable subject to environmental clearance.

70. At this point of time, the matter was handled by the Department of Science and Technology which also had a Department dealing with Environment. Environmental Appraisal Committee of the Department of Environment, then headed by a Joint Secretary, had in its meeting held on 12.4.1983 approved the project, in principle, and

required that further data be collected. This Environmental Appraisal Committee dealt with the project on two other occasions, namely, on 29.3.1985 when it deferred meeting to await report of Dewan Committee on soil conservation and thereafter on 6.12.1985 when it deferred the meeting to await comments from the Forest Department. As stated hereafter, subsequently the Secretary of newly constituted Ministry of Environment and Forests took up further consideration of this project along with other higher officials.

71. After the project was approved, in principle, studies and collections of data were continuing. In May, 1983 the Narmada Planning Group, Government of Gujarat after completion of preliminary surveys submitted work plans for various activities such as cropping pattern, health aspects, water requirements, distribution system, lay out and operation, development plan of the command, drainage and ground water development.

72. In July, 1983, a study report on "Ecology and Environmental Impact of Sardar Sarovar Dam and its Environs" prepared by MS University was also submitted by Government of Gujarat, covering the issues as mentioned below:

- \* Climate
- \* Geology
- \* Soil
- \* Land use
- \* Forest and Wildlife, Aquatic Vegetation
- \* Water Regime (Salinity, Tidal movements etc.)
- \* Fisheries
- \* Health
- \* Seismicity

73. A review meeting was convened by the Secretary, Ministry of Water Resources in January, 1984 which was attended by a representative of the Department of Environment. During this meeting, it was emphasized that the issues regarding catchment area treatment, impact on wildlife, health, water logging etc. should be studied in depth for assessment. The issue of charging of cost of catchment area treatment to the project was also discussed. To sort out this matter, a meeting was subsequently convened by the Member, Planning Commission on 23rd May, 1984 in which the Ministry of Environment & Forests took a stand that there was a need for an integrated approach to basin development covering the catchment and command area. A project report, therefore, should be prepared to cover these aspects. Since the catchment area for Narmada Sagar and Sardar Sarovar was very vast, it was decided that an Inter-

Departmental Committee should be set up by the Ministry of Agriculture under the Chairmanship of Dr. ML. Dewan. This group could submit its report only in August, 1985 covering areas of catchment of Narmada and Sardar Sarovar and recommended that at least 25-30% of the area might require treatment for these projects.

74. The consideration of the project in the Ministry, therefore, got deferred for this report on catchment area treatment. During this time, Government of Madhya Pradesh entrusted the studies on flora for Narmada Valley Project to Botanical Survey of India and other related surveys were being carried out. Even though there was a request on 1 Oth June, 1985 from the Chief Minister of Gujarat to the Minister of State for Environment and Forests for delinking of catchment area treatment works on clearance of the project, but this request was not agreed.

75. By this time the approval of SSP was being considered by the Secretary, Ministry of Environment and Forests who invited other high officials in a review meeting which was held on 31st December, 1985 under his chairmanship. In this meeting, detailed presentations were made by the State officials of Gujarat, Madhya Pradesh and Maharashtra as well as the experts who were involved in preparation of plans. The Secretary, Ministry of Environment and Forests assessed and reviewed readiness on various environmental aspects like Catchment Area Treatment, Compensatory Afforestation, Rehabilitation, Command area Development, Labour force and health issues, aquatic species, seismicity etc. and discussed the available reports in detail in the presence of the officers of the Central/State Governments, Botanical Survey of India, senior officers of Forest Department, Planning Commission, Agriculture Department, Additional. Inspector of Forests, Government of India, Deputy Inspector General, Assistant Inspector General of Forest, Government of India, senior officers of the Ministry of Environment and Forests, Secretary, Irrigation.

76. As a follow up, the Government of Maharashtra submitted environmental data regarding affected areas in Maharashtra. This included:

- \* Impact assessment on wild life
- \* Impact assessment on genetics, specifically identifying the plant types which are likely to be lost as a result of submergence.
- \*Socio anthropological studies on tribals
- \*The suitability of alternative land suggested for compensatory afforestation for growing.
- \*Data regarding alternate land in large blocks.
- \* Arrangements made for exploitation of mineral resources going under submergence.
- \* Alternative fuels to the labourers.

- \* Micro-climatic changes.
- \* Arrangements made for treatment of catchment area including soil conservation afforestation.
- \* Steps taken for preserving archaeological and historical monuments.
- \* Proper land use
- \* Actions taken by Government of Maharashtra in pursuance of Dewan Committee Report.
- \* Arrangements for monitoring for environmental impact for the project.
- \* Data related to rehabilitation of project affected persons.

77. The Government of Gujarat also forwarded to the Government of India work plans on the following:

Forests and Wildlife

Fish and Fisheries

Health aspects

The work plan on forests and wildlife incorporated actions to be taken on the recommendations of the Inter-Departmental Committee headed by Dr. Dewan on soil conservation and afforestation works in the catchment area.

78. In March, 1986, a meeting was convened by the Ministry of Water Resources in order to discuss the issues of fisheries, flora/fauna, health, archaeology with the officers of the Botanical Survey of India, Zoological Survey of India, Archaeological Survey of India and the officers of the various departments of the State and Centre to gear up the preparation of the environmental work plans. The next meeting was held on 11th April, 1986. The Secretary, Ministry of Environment and Forests, who chaired the meeting of senior officials, representatives of States and other agencies, sought additional information to be made available by 30th April, 1986 before assessment and management decision.

79. In October, 1986, the Ministry of Water Resources prepared and forwarded to the Ministry of Environment and Forests, a note on environmental aspects of the two projects and noted the urgency of the decision. It also considered the importance of the project, should the project be taken at all, environmental aspects of the project and ultimately rehabilitation, compensatory afforestation, fauna and flora, catchment area treatment, public health aspect, prevention of water logging. It then considered what remained to be done and enumerated the same with time schedule as follows:

1. Madhya Pradesh to complete the detailed survey of population likely to be affected in all phases of N.S.P.

...Three years

2. Maharashtra to prepare a detailed rehabilitation plan for 33 villages under phase 1 of SSP

...Three years

3. Madhya Pradesh to identify degraded forest lands twice the forest area to be submerged for compensatory afforestation.

...Six months

4. Survey of flora in Narmada valley assigned to Botanical Survey of India.

...Two years

5. Survey of Wildlife by Zoological Survey of India.

...Two years

6. Aerial photographs and satellite imagery to be analysed by All India Soil and Land Use Survey Organisation and National Remote Sensing Agency and critically degraded areas in catchment.

Field Surveys ...Three years.

Pilot studies to determine  
measures for CAT  
In 25000 ha.

...Three years  
after Aerial  
survey.

80. In this note two options were considered - one to postpone the clearance and the other was to clear it with certain conditions with appropriate monitoring authorities to ensure that the action is taken within the time bound programme. It was concluded that in the light of the position set out, it was necessary that the project should be cleared from the environmental angle, subject to conditions and stipulations outlined.

81. The Department of Environment and Forests made its own assessment through a note of the Secretary, Ministry of Environment and Forests. It took the view that following surveys/studies as set out therein might take at least 2-3 years. It noted in this regard that:

- i) The estimate of Ministry of Water Resources on analysis of aerial photographs and satellite imageries as 2-3 years.
- ii) Catchment area treatment programme can be formulated by three years thereafter;
- iii) Wildlife census by Zoological Survey of India would take at least three years;
- iv) Survey by Botanical Survey of India would take three years.

It further took the view that it was essential that there should be a strong management authority. It finally concluded that if the Government should decide to go ahead with the project it should be done with provision of environmental management authority with adequate powers and teeth to ensure that environment management plan is implemented *pari passu* with engineering and other works. It concluded that effective implementation of the engineering and environmental measures simultaneously will go a long way and that such a project could be implemented by harmonizing environmental conservation needs with the developmental effort.

82. The Ministry of Environment and Forests had not given environmental clearance of Narmada Sagar and Sardar Sarovar Dam despite all discussions which had taken place. The documents filed along with the affidavit of Shri P.K. Roy, Under Secretary, Prime Minister's Office dated 27th April, 2000 indicate that there was difference of opinion with regard to the grant of environmental clearance between the Ministry of Water Resources and the Ministry of Environment & Forests. This led to the matter being referred to the Prime Minister's Secretariat for clearance at the highest level. A note dated 20th November, 1986 prepared by the Ministry of Water Resources was forwarded to the Prime Minister Secretariat as well as to the Ministry of Environment and Forests after dealing with the environmental aspects relating to rehabilitation, catchment area treatment, command area development, compensatory afforestation, flora and fauna. This note indicated that there were two options with regard to the clearance of the said project. One was to await for two to three years for the completion of the operational plans and other detailed studies and the second option was that the project should be given the necessary clearance subject to the stipulation with regard to the action to be taken in connection with various environmental aspects and appropriate monitoring arrangements to ensure that the actions were taken in a time bound manner. The Ministry of Water Resources recommended that it should be possible to give environmental clearance of the project and ensure that the conditions are properly met through a process of clear assignment of responsibility and frequent monitoring. The *modus operandi* for instituting a monitoring system could be discussed at the meeting.

83. On 26th November, 1986, a meeting took place which was attended, *inter alia*, by the Secretary, Ministry of Water Resources, Secretary, Ministry of Environment & Forests, Additional Secretary, Prime Minister Secretariat and representatives of the Governments of Madhya Pradesh and Gujarat regarding the environmental aspects of the Narmada Sagar and Sardar Sarovar Project. The minutes of the meeting, *inter alia*, disclosed "it was decided that the Government of Gujarat would identify lands for allocation to the

project affected persons of Madhya Pradesh within a specified period of time. The meeting also envisaged the arrangement of a Monitoring and Enforcement Authority to monitor the project and to ensure that the actions on the environmental aspects proceed according to the schedule and pari passu with the rest of the project". This Authority was not to be mainly a advisory one but was to be given executive powers of enforcement including the power to order stoppage of construction activity in the event of its being of the opinion that there was lack of progress in action on the environmental front.

84. On 19th December, 1986, the Secretary, Ministry of Environment and Forests sent to the Secretary to the Prime Minister a combined note on the environmental aspects of both the projects, namely, Narmada Sagar and Sardar Sarovar Project. In this note, it was, inter alia, stated that there was absence and inadequacy on some important environmental aspects even though the Sardar Sarovar Project was in a fairly advance stage of preparedness. The note also recommended the establishment of the Narmada Management Authority with adequate powers and teeth to ensure that the Environmental Management Plan did not remain only on paper but was implemented; and implemented pari passu with engineering and other works. In the end, in the note, it was stated as follows:

If, despite the meagre availability of data and the state of readiness on NSP, the Government should decide to go ahead with the project it is submitted that it should do so only on the basis of providing a Management Authority as outlined above with the hope that the public opposition, not just by vested interests but by credible professional environmentalists, can be overcome. Effective implementation of the engineering and environmental measures simultaneously would go a long way to prove that even such a project can be implemented by harmonising environmental conservation needs with the development effort.

The choice is difficult but a choice has to be made.

Along with this note was the statement showing the cost and the benefits of the Narmada Sagar and the Sardar Sarovar dam. The same reads as follows:

COSTS NARMADA SAGAR SARDAR SAROVAR 1. Dam construction Rs. 1400 crores Rs. 4240 crores 2. Loss of forest (1981 price level) (1982 price level) 3. Environmental cost of Rs. 320 crores loss of forests Rs. 30923 crores 4. Catchment Area development Rs. 300 crores +-Rs. 8190 crores 5. Command area development Rs. 243.7 crores Not available 129396 (1981 census) Rs. 604.0 crores 86572 (Excluding Rs. 300.0 crores 6. Loss of Mineral Reserves population with (conjunctive use) 7. Diversion of 42 km land submerged for Railway line short period every year) 91348 ha 8. Population affected 123000 ha 140960 ha 223.5 MW 39134 ha 9. Land submerged Benefits (firm power) 1792000 ha 10. Area irrigated Net 1000 MV 2120000 ha cultivable land (Installed 300 MW 11. Power Generations capacity) 118.3 MW in 1450 (Installed 2023 A.D.

85. After a series of meetings held between the Secretary to Prime Minister's office as well as the Ministry of Water Resources, a detailed note dated 15th January, 1987 was prepared by Mrs. Otima Bordia, Additional Secretary to the Prime Minister. The notes

opened by saying that Narmada Sagar and Sardar Sarovar multipurpose projects have been pending approval of the Government of India for a considerable amount of time. The States of Madhya Pradesh and Gujarat have been particularly concerned and have been pressing for their clearance. The main issues of environmental concern related to the rehabilitation of the affected population, compensatory afforestation, treatment of the catchment area, command area development, pertaining particularly to drainage, water logging and salinity. The said note mentioned that the Department of Environment and Forests had sent a note with the approval of the Minister for Environment and Forests and had recommended conditional approval to the Narmada Sagar and Sardar Sarovar Projects subject to three conditions:

- i) Review of design parameters to examine the feasibility of modifying the height of the dam;
- ii) Preparation in due time, detailed and satisfactory plans for rehabilitation, catchment area treatment, compensatory afforestation and command area development;
- iii) Setting up of Narmada Management Authority with adequate powers and teeth to ensure that environmental management plans are implemented *pari passu* with engineering and other works.

86. It is further stated in the note that the Ministry of Water Resources and the State Governments had no difficulty in accepting conditions (ii) and (iii). With regard to review of design parameters and dam height, the Ministry of Water Resources had examined the same after taking into consideration the comments of the Central Water Commission and concluded that the reduction of the FRL of the Narmada Sagar project would not be worthwhile. The Secretary to the Prime Minister had discussed the matter with the Secretary, Ministry of Water Resources and Secretary, Ministry of Environment and Forests and it was agreed that the recommendation of the Minister of Environment and Forests of giving clearance on the condition that items (ii) and (iii) referred to hereinabove be accepted. The note also stated that in view of the technical report, reduction in the dam height did not appear to be feasible. This note of Mrs. Otima Bordia recommended that the Prime Minister's approval was sought on giving conditional clearance. On this note, Mrs. Serla Grewal, Secretary to the Prime Minister noted as follows:

Proposal at para 17 may kindly be approved. This project has been pending clearance for the last 7 years and both the C.Ms, of Gujarat and Madhya Pradesh are keenly awaiting the clearance of the same. The agency, which is proposed to be set up to monitor the implementation of this project, will fully take care of the environmental degradation about which P.M. was concerned. The Ministry of Environment and Forests have recommended clearance of this project subject to conditions which will take care of P.M's apprehensions. I shall request Secretary, Water Resources, who will be Chairman of the Monitoring Agency, to see that no violation of any sort takes place and P.M's office will be kept informed of the progress of this project every quarter. The matter is urgent as last

week CM. Gujarat had requested for green signal to be given to him before 20th January. P.M. may kindly approve.

The Prime Minister Shri Rajiv Gandhi, instead of giving the approval, made the following note:

Perhaps this is a good time to try for a River Valley Authority. Discuss

It appears that the Ministry of Environment and Forests gave its clearance to the setting up of Inter-Ministerial Committee and on 8th April, 1987, following note was prepared and forwarded to the Prime Minister.

This case has got unduly delayed. P.M. was anxious that speedy action should be taken. As such, since the Ministry of Environment have given its clearance subject to setting up of an Inter-Ministerial Committee as indicated at 'A' above, we may give the necessary clearance. The three Chief Ministers may be requested to come over early next week to give their clearance in principle for the setting up of a River Valley Authority so that simultaneous action can be initiated for giving practical shape to this concept. The clearance of the project, however, should be communicated within two weeks as I have been informed by Shri Shiv Shanker and Shri Bhajan Lal that interested parties are likely to start an agitation and it is better if clearance is communicated before mischief is done by the interested parties.

87. Along with another affidavit of Shri P.K. Roy, Under Secretary, Prime Minister's Office dated 2nd May, 2000, some correspondence exchanged between Legislature and the Prime Minister has also been placed on record relating to the granting of the environmental clearance by the Prime Minister. On 31st March, 1987, Shri Shanker Sing Vaghela, the then Member of Parliament, Rajya Sabha had written a letter to the Prime Minister in which it was, inter alia, stated that the foundation stone for the Narmada Project had been laid 25 years ago by the late Pandit Jawahar Lal Nehru and that after the Tribunal's Award, Mrs. Indira Gandhi had cleared the project in 1978, but still the environmental clearance had not so far been given. It was also stated in his letter that the project was now being delayed on account of so-called environmental problems. It was further stated in his letter that the Sardar Sarovar Project, when completed, will solve more of the pressing problems of environment than creating them. To this letter of Shri Vaghela, the Prime Minister sent a reply dated 8th April, 1987 stating as follows:

I have seen your letter of 31st March regarding the Narmada Project. All aspects have to be carefully considered before decisions are taken on a project of this size. This is being done.

The environment and ecological factors cannot be dis-regarded. We cannot also dismiss the needs of our tribal people. Safeguards are required to ensure that rehabilitation plans are effective.

All these aspects are being examined and a decision will be taken soon.

On 30th April, 1987, a press note was released by the Government of India, in which it was stated that in a meeting presided over by the Prime Minister, it was agreed by the Chief Ministers of Madhya Pradesh and Gujarat and representatives of the Maharashtra Government that a high level River Valley Authority would be set up for the control and development of the river basin. This press note also stated that the Narmada Sagar and the Sardar Sarovar Project on the river Narmada had been cleared. Soon, thereafter Shri Ahmad Patel, Member of Parliament from Gujarat wrote a letter dated 14th April, 1987 to Shri Rajiv Gandhi expressing his gratitude for according clearance to the Narmada multi-purpose project. This letter was replied to on 22nd April, 1987 by Shri Rajiv Gandhi who thanked Shri Patel for writing his letter dated 14th April, 1987 regarding the Narmada project. On 20th April, 1987, Shri Shanker Singh Vaghela wrote another letter to the Prime Minister. While thanking him for clearing the project, it was stated that there was apprehension about the environment and ecological factors and also about the needs of the tribal people. The Prime Minister was requested "to clarify to the people of Gujarat whether or not these aspects have finally been cleared or not and all the doubts on this front have been finally set at rest or not". On 4th May, 1987 the Prime Minister replied to this letter in which it was stated as follows:

There should be no grounds for any misunderstanding in this regard. The Narmada Project has been cleared while at the same time ensuring that environmental safeguards will be enforced and effective measures taken for the rehabilitation of the tribals. You could ask the Ministry of Water Resources or the State Government for details.

Lastly, we need make reference to a letter dated 10th June, 1987 written by Smt. Chandraben Sureshbhai Shrimali, an M.L.A. of Gujarat and the reply of the Prime Minister thereto. In the said letter dated 10th June, 1987, Smt. Shrimali thanked the Prime Minister for clearing the Narmada project and it was stated that the dry land of Gujarat and Saurashtra would be fertilised through Narmada Yojna. To this, reply dated 30th June, 1987 of the Prime Minister was as follows:

Thank you for your letter of 10th June. The visit to Surendranagar was useful and educative. We are all looking forward to the early implementation of the Sardar Sarovar project. The question of environmental protection also needs serious attention. I wish you and the people of Surendranagar a good monsoon.

88. From the documents and the letters referred to hereinabove, it is more than evident that the Government of India was deeply concerned with the environmental aspects of the Narmada Sagar and Sardar Sarovar Project. Inasmuch as there was some difference of opinion between the Ministries of Water Resources and Environment & Forests with regard to the grant of environmental clearance, the matter was referred to the Prime Minister. Thereafter, series of discussions took place in the Prime Minister's Secretariat and the concern of the Prime Minister with regard to the environment and desire to safeguard the interest of the tribals resulted in some time being taken. The Prime Minister gave environmental clearance on 13th April, 1987 and formal letter was issued thereafter on 24th June, 1987.

89. It is not possible, in view of the aforesaid state of affairs, for this Court to accept the contention of the petitioner that the environmental clearance of the project was given without application of mind. It is evident, and in fact this was the grievance made by Shri Vaghela, that the environmental clearance of the project was unduly delayed. The Government was aware of the fact that number of studies and data had to be collected relating to environment. Keeping this in mind, a conscious decision was taken to grant environmental clearance and in order to ensure that environmental management plans are implemented pari passu with engineering and other works, the Narmada Management Authority was directed to be constituted. This is also reflected from the letter dated 24th June, 1987 of Shri Mudgal giving formal clearance to the project.

#### Re: OTHER ISSUES RELATING TO ENVIRONMENT

90. Prior to the grant of the environmental clearance on 24th June, 1987, sufficient studies were made with regard to different aspects of environment on the basis of which conditional clearance was granted on 24th June, 1987, one of the condition of clearance being that the balance studies should be completed within a stipulated time frame. According to the Government of Gujarat, the conditions imposed in the environmental clearance granted on June 24, 1987 were:

- (a) The NCA would ensure that the environmental safeguard measures are planned and implemented pari passu with the progress of work on the project.
- (b) The detailed survey/studies assured will be carried out as per the schedule proposed and details made available to the department for assessment.
- (c) The catchment area treatment programme and rehabilitation plans be so drawn so as to be completed ahead of reservoir filling.
- (d) The department should be informed of progress on various works periodically.

91. It was further submitted by the Government of Gujarat that none of these conditions were linked to any concrete time frame.

- (a) The first condition casts a responsibility on the NCA to ensure that the environmental aspects are always kept in view. The best way to attain the first and the fourth condition - was to create an environmental sub-group headed by the Secretary in the Ministry of Environment and Forest.
- (b) The second condition - the conducting of surveys by its very nature - could not be made time bound. The surveys related to various activities to undo any damage or threat to the environment not only by the execution of the project but in the long term. Therefore, any delay in the conduct of surveys was not critical. Besides, a perusal of the latest status report on environment shows that a large number of surveys were carried out right from 1983 and also after 1987.

(c) The third condition has already stood fully complied with as observed by Environment Sub-Group.

(d) The fourth condition again involved keeping the department informed.

92. It was submitted that the concept of "lapsing" is alien to such conditions, In other words, formal environmental and forest clearances granted by the Ministry of Environment and Forests, Government of India are not lapsed and are very much alive and subsisting.

93. With regard to the lapsing of the clearance granted in 1987, it was contended by Mr. Harish Salve that a letter dated 25th May, 1992 was written by the Secretary, Ministry of Environment and Forests, Government of India to the Secretary, Ministry of Water Resources stating, inter alia, that the conditions of clearance of the project were not yet met and, therefore, a formal request for extension of environmental clearance, as directed by Review Committee of Narmada Control Authority, may be made and failing which, a formal notification may be issued revoking the earlier clearance. It is, however, an admitted position that no formal notification has ever been issued revoking and/or cancelling the aforesaid two clearances at any point of time by the Ministry of Environment and Forests, Government of India. The Secretary, Ministry of Environment and Forests has continued to hold and chair the meetings of Environment Sub-Group, Narmada Control Authority closely monitoring the execution of SSP for ensuring that environmental safeguard measures are implemented pari passu with the progress of work. On 11th August, 1992, a letter was written by Narmada Control Authority to the Secretary, Ministry of Environment and Forests sending action plan and status in respect of environmental safeguard measures taken and also stating amongst other details, the following:

A number of letters were exchanged between the MOWR and MOEF and a great deal of discussion took place both in the Environment Sub-Group and NCA as to whether an application for extension of time as above is at all necessary. After a detailed discussion in the last NCA meeting on 25th July, 1992, it has been decided that NCA should clearly indicate the additional time required for the completion of the remaining studies like flora and fauna and some aspects of fisheries and a revised action plan based thereon be also sent expeditiously.

XXXXXX  
XXXXXX

Keeping in view the fact and circumstances mentioned above, I request you to kindly agree to the schedule of the studies and the follow up actions as presented here. A brief account of the action plan together with bar charts are enclosed, presenting a pictorial view.

On 15th December, 1992, a letter was written to the Secretary, Ministry of Environment and Forests, more particularly stating as under, amongst other things

The Narmada Control Authority has already prepared an action plan and status on the environmental measures of Sardar Sarovar Project and submitted to the Ministry of Environment and Forests vide their letter No. NCA/EM/683 dated 11.8.1992 for concurrence. As may be seen from their report on action, so far there is no safeguard measures.

During field season of every year this will be closely reviewed to attain pari passu objectives so that the submergence during monsoon is taken care of.

The above actions are scheduled to be completed by June, 1993. No doubt, action in Maharashtra is lagging. The matter was taken up with the Chief Secretary of Maharashtra. A copy of his reply dated 7.11.1992 is enclosed. You will observe that the reasons for the lag are largely due to the un-cooperative and agitational approach adopted by some people.

Taking all these into account, you will appreciate that the action plans are adequate.

The Minister for Water Resources, Government of India wrote a letter on 27th January, 1993 to the Minister of State for Environment and Forests stating that there had been no violation of environmental safeguard measures. On 7th July, 1993, the Secretary, Ministry of Water Resources, Government of India wrote a letter to the Secretary, Ministry of Environment and Forests, Government of India, more particularly stating as under:

Progress of all the environmental works is summarised in the sheet enclosed herewith. I share your concern for initial delay in some of the studies but now it seems that the work has started in full swing. However, there is a need to keep a close watch and I am advising the NCA for the same.

By letter dated 17th September, 1993, the Minister of State for Environment and Forests, Government of India wrote to the Minister for Water Resources, Government of India appreciating the efforts made by the concerned State Governments in making the environmental plans. The exchange of the aforesaid correspondence and the conduct of various meetings of the Environment Subgroup from time to time under the Chairmanship of the Secretary, Ministry of Environment and Forests, dispels the doubt of the environment clearance having been lapsed. In other words, there could not have been any question of the environmental clearance granted to SSP being lapsed more particularly when the Environment Subgroup had been consistently monitoring the progress of various environmental works and had been observing in its minutes of various meetings held from time to time, about its analysis of the works done by the respective States in the matter of the status of studies, surveys and environmental action plans in relation with:

- (i) phased catchment area treatment;
- (ii) compensatory afforestation;

- (iii) command area development;
- (iv) survey of flora, fauna etc.
- (v) archeological and anthropological survey;
- (vi) seismicity and rim stability of reservoir
- (vii) health aspects and
- (viii) fisheries development of SSP and NSP reservoirs.

94. Sh. Shanti Bhushan in the course of his submissions referred to the report of the Morse Committee in support of his contentions that the project was flawed in more ways than one.

95. The Morse Committee was constituted, as already noted, by the World Bank. Its recommendations were forwarded to the World Bank. Apart from the Criticism of this report from other quarters, the World Bank itself, did not accept this report as is evident from its press release dated 22nd June, 1992 where it was, inter alia, stated as follows:

The Morse Commission provided a draft of its report to the Bank for management' comments several weeks prior to the final release of the document. About two weeks before this release, the commission provided a draft of its findings and recommendations. The final version of the report is the sole responsibility of its authors; the report was not cleared by the World Bank.

On resettlement and rehabilitation (R&R), Bank management agrees with the description of the R&R situation in each of the three states and with the report's conclusions about the shortcomings in the preparation and appraisal of the project's R&R aspects. We also agree that work should have been done earlier on the issue of people affected by the canal in Gujarat. However, we do not share the view that resettlement would be virtually impossible even if Maharashtra and Madhya Pradesh adopted the liberal resettlement package provided for displaced people by the State of Gujarat. Given the experience so far, and the fact that most of the impact of submergence on people will not occur until 1997, there is still time to develop meaningful R&R packages and programs in consultation with the affected peoples. Efforts are being intensified to achieve this.

On environment, bank management agrees with the independent review on the need for a more effective central management in the Narmada Basin on environment impact studies and mitigation programmes. Management also agrees on the need to accelerate work on estuary studies and health matters in Gujarat. However, management does not share the review's conclusions about the environmental severity of the study delays. Command area issues are being addressed, including issues of water logging and salinity. On water availability (hydrology), Bank Management disagrees with the finding that there is

insufficient impoundment of water upstream of the Sardar Sarovar Dam site to make the irrigation system work as designed.

The Government of India vide its letter dated 7th August, 1992 from the Secretary, Ministry of Environment and Forests did not accept the report and commented adversely on it.

96. In view of the above, we do not propose, while considering the petitioners' contentions, to place any reliance on the report of Morse Committee.

97. It was submitted on behalf of the petitioners that the command area development was an important aspect as the benefits of the project depended on this and if proper studies and plans were not done and not implemented, the very areas that were supposed to benefit will end up being rendered unfit for cultivation and the water logging and salinisation could render vast areas of the command unproductive. It was also submitted that still there was no integrated command area environmental impact assessment. After referring to the status reports and studies regarding the command area development, it was submitted that there was need for some independent agency to examine the various studies, action plans and the experience and to see whether there was ground to believe that the proposed measures will work or not. It was contended that master plan for drainage and command area development was still not in place and even the full studies had not been done.

98. While refuting the aforesaid contentions it was argued on behalf of learned Counsel for the respondents that the SSP will provide irrigation water for a cultivable command area of 1.9 million hectares in Gujarat and 75,000 hectares in Rajasthan. The introduction of fresh water to the drought-prone areas of Gujarat will create obvious benefits for the farming communities. In order to safeguard these benefits, control and monitoring was suggested by the Secretary, Ministry of Environment and Forests and Chairman of the Environment Sub-group in the following areas from time to time:

drainage, water logging and soil salinity;

water quality;

forest loss;

potential impact on flora and fauna;

effects on public health;

socio-economic impacts.

99. Pursuant thereto fifty in-depth studies had been carried out by the State Governments of Gujarat and Rajasthan and some of the studies were still in progress. One of the main

objectives of carrying out these studies was to prevent excessive use of ground water and water-logging.

100. There is no reason whatsoever as to why independent experts should be required to examine the quality, accuracy, recommendations and implementation of the studies carried out. The Narmada Control Authority and the Environmental Sub-group in particular have the advantage of having with them the studies which had been carried out and there is no reason to believe that they would not be able to handle any problem, if and when, it arises or to doubt the correctness of the studies made.

101. It was submitted by Sh. Shanti Bhushan that the catchment area treatment programme was not to be done *pari passu* but was required to be completed before the impoundment. This contention was based on the terms of the letter dated 24th June, 1987 wherein conditional environmental clearance was granted, *inter alia*, on the condition that "the catchment area treatment programme and rehabilitation plans be drawn so as to be completed ahead of reservoir filling". Admittedly, the impounding began in 1994 and the submission of Sh. Shanti Bhushan was that catchment area treatment programme had not been completed by them and, therefore, this very important condition had been grossly violated. Reference was also made to the Minutes of the Environmental Sub-group meetings to show that there had been slippage in catchment area treatment work.

102. The clearance of June, 1987 required the work to be done *pari passu* with the construction of the dams and the filling of the reservoir. The area wherein the rainfall water is collected and drained into the river or reservoir is called catchment area and the catchment area treatment was essentially aimed at checking of soil erosion and minimising the silting in the reservoir within the immediate vicinity of the reservoir in the catchment area. The respondents had proceeded on the basis that the requirement in the letter of June, 1987 that catchment area treatment programme and rehabilitation plans be drawn up and completed ahead of reservoir filling would imply that the work was to be done *pari passu*, as far as catchment area treatment programme is concerned, with the filling of reservoir. Even though the filling of the reservoir started in 1994, the impoundment Award was much less than the catchment area treatment which had been affected. The status of compliance with respect to *pari passu* conditions indicated that in the year 1999, the reservoir level was 88.0 meter, the impoundment area was 6881 hectares (19%) and the area where catchment treatment had been carried out was 128230 hectares being 71.56% of the total work required to be done. The Minutes of the Environmental Sub-group as on 28th September, 1999 stated that catchment area treatment works were nearing completion in the states of Gujarat and Maharashtra. Though, there was some slippage in Madhya Pradesh, however, overall works by and large were on schedule. This clearly showed that the monitoring of the catchment treatment plan was being done by the Environmental Sub-group quite effectively.

103. With regard to compensatory afforestation it was contended by Sh. Shanti Bhushan that it was being carried out outside the project impact area. Further, it was submitted that the practice of using waste land or lesser quality land for compensatory afforestation means that the forest will be of lesser quality. Both of these together defeated the spirit of

the compensatory afforestation. It was contended that the whole compensatory afforestation programme was needed to be looked at by independent experts.

104. While granting approval in 1987 to the submergence of forest land and/or diversion thereof for the SSP, the Ministry of Environment and Forests had laid down a condition that for every hectare of forest land submerged or diverted for construction of the project, there should be compensatory afforestation on one hectare of non-forest land plus reforestation on two hectare of degraded forest. According to the State of Gujarat, it had fully complied with the condition by raising afforestation in 4650 hectares of non-forest areas and 9300 hectares in degraded forest areas before 1995-96 against the impoundment area of 19%. The pari passu achievement of afforestation in Gujarat was stated to be 99.62%.

105. If afforestation was taking place on waste land or lesser quality land, it did not necessarily follow, as was contended by the petitioners, that the forests would be of lesser quality or quantity.

106. It was also contended on behalf of the petitioners that downstream impacts of the project would include not only destruction of downstream fisheries, one of the most important ones in Gujarat on which thousands of people are dependent but will also result in salt water ingress. The project, it was contended, will have grave impacts on the Narmada Estuary and unless the possible impacts were properly studied and made public and mitigation plans demonstrated with the requisite budget, one could not accept the claim that these matters were being looked into. The need to assess the problem was stated to be urgent as according to the petitioners rich fisheries downstream of the dam, including the famed Hilsa would be almost completely destroyed. The salinity ingress threatened the water supply and irrigation use of over 210 villages and towns and Bharuch city. All these would not only have serious economic and other impacts but would also directly destroy the livelihoods of at least 10000 fisher families.

107. Again all these contentions were based on the Morse Committee Report which the World Bank and the Union of India had already rejected. That apart, according to the respondents, in 1992 Sardar Sarovar Narmada Nigam Limited issued an approach paper on environmental impact assessment for the river reach downstream. This provided technical understanding of the likely hydrological changes and possible impact in relation thereto. It was further submitted by learned Counsel for the respondents that the potential for environmental changes in the lower river and estuary had to be seen in the context of the long term development of the basin. The current stage was clearly beneficial. The three stages could be identified as follows:

Stage 1 covers the period roughly from the completion of Sardar Sarovar Dam to the year 2015. Events occurring during this stage include (a) SSP Canal Command will have reached full development and requires diversion of some water, (b) the upstream demand will reach about 8 MAF and (c) the Narmada Sagar Dam will have been built and placed in operation.

Stage 2 covers the period from 2015 and 2030 during which the demands upstream of SSP continue to grow and will reach about 12 MAP still below the volume of 18 MAF that Madhya Pradesh can take in a 75% year.

Stage 3 covers the period upto and beyond full basin development.

The report given by M/s. H.R. Wallingford in March, 1993 in respect of the down stream impacts of Sardar Sarovar Dam observes, inter alia, as under:

The overall conclusion of the team undertaking the assessment described in this report is that there are no down steam impacts whose magnitude and effect are such as to cause doubts to be cast over the wisdom of proceeding with the Sardar Sarovar Projects provided that appropriate monitoring and mitigation measures are applied. Much of this work is already in progress under the auspices of the NPG, SSNNL and NCA. The recommendations in this report are intended to provide a synthesis of their work and suggestions as to whether it might be modified to enhance its usefulness.

The said M/s. H.R. Wallingford in the findings of 1995 stated as under:

It is thought unlikely that any significant negative environmental impacts will occur over the next 30 years as a result of the project. Some possible adverse effects have been identified the main one being the effect of flood attenuation on Hilsa migration. These needs to be monitored and more studies undertaken to better understand the conditions which trigger spawning. Beneficial impacts in this period include reduced flooding and more reliable dry season flows as well as an overall improvement of the health and well being of the people to the reliable domestic water supply, improved nutrition and enhanced economic activity.

The above report clearly demonstrates that the construction of dam would result into more regulated and perennial flow into the river with an overall beneficial impact. It is also evident that until all the dams are constructed upstream and the entire flow of river is harnessed, which is not likely in the foreseeable future, there is no question of adverse impact including the fishing activity and the petitioner's assertions in this regard are ill-conceived.

108. The area of submergence was stated to be rich in archaeological remains but it still remained to be studied. It was contended that there was danger of rich historical legacy being lost and even a small increase in the dam height would threaten to submerge many of the sites listed in the report of the Archaeological Survey of India. There were stated to be five monuments which would be affected at the dam height of 90 meter or above and no work was stated to have commenced to protect any of the five monuments.

109. According to the State of Gujarat, the Ancient Monuments and Archaeological Sites and Remains Act, 1958 charged the Central and/or State Department of Archaeology with responsibility for the protection of important cultural sites. Under the Act, sites were classified into three categories as follows:

Type 1: Monuments of national importance which are protected by the Central Government;

Type 2: monuments of religious or cultural importance which are protected by the State Government; and

Type 3: monuments which are neither Centrally nor State protected, but which are considered to be an important part of cultural heritage.

Under the same law, authorities charged with the protection of the monuments are permitted to take suitable measures to ensure the preservation of any protected site under threat from decay, misuse or economic activity.

In the case of Sardar Sarovar, where several sites may be submerged, the NDWT award stipulated that the entire cost of relocation and protection should be chargeable to Gujarat. Relocation work was to be supervised by the Department of Archaeology under the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

110. The three State Governments carried out a complete survey of cultural and religious sites within the submergence zone. The principle of these surveys was to list all Archaeological sites, identify and name any site under state protection and further identify sites of religious or cultural significance which, although not protected under national law, were of sufficient value to merit relocation. So far as the State of Gujarat is concerned the Department of Archaeology surveyed archeological sites in nineteen villages of submergence zone in Gujarat under the title of "Archaeological Survey of Nineteen Villages in Gujarat submerged by Sardar Sarovar Reservoir, 1989."

In addition to baseline studies on archaeological aspects, work had been carried out on the anthropological heritage of Narmada Basin, including examination of evidence of ancient dwellings and cultural artifacts. The principal studies in this behalf are described below:

Anthropological Survey of India: Narmada Salvage Plan: The Narmada Salvage Plan contains detailed background data on palaeoanthropological, human ecological and other aspects of the Narmada Valley. By May, 1992, surface scanning of 17 sample villages coming under the submergence had been carried out and 424 specimens including ancient tools etc. had been collected.

Anthropological Survey of India. Peoples of India: This project entailed a complete survey of 33 tribes of India including those of Narmada Basin. The study covered all aspects of tribal culture in India and was published in 61 volumes in 1992.

#### Summary of current situation and progress, Government of Gujarat

Survey of villages in Complete for all submergence zone items in the State Identification Complete for of cultural all items sites in the

It was further submitted on behalf of respondents that no centrally or state protected cultural sites were located in the submergence area of the project. In Gujarat, the Department of Archaeology concluded that the temples of Shoolpaneshwar and Hampheshwar were important monuments and should be moved to a higher level. Sites were selected for constructing new Shoolpaneshwar and Hampheshwar temples in consultation with temple trustees. Shoolpaneshwar had been relocated and reconstructed near Gora, about 15 Km downstream from the present location. Hampheshwar was also constructed at higher ground in consultation with the temple trustees and pranpratistha was also planned on 22nd to 24th April, 2000 i.e. before the temple was submerged.

111. In relation to flora and fauna studies, it was contended by the petitioners that the studies had finished only recently and the action plans were awaited in many cases. In the meanwhile, extensive deforestation of the submergence zone had taken place, as also part of the area had been submerged, even as the studies have been on. It was also contended that the impact on some of these Wild Ass Sanctuary in Kutch would be very severe.

112. The guidelines of the Ministry of Environment and Forests required that while seeking environmental clearance for the hydropower projects, surveys should be conducted so that the status of the flora and fauna present could be assessed. A condition of environmental clearance of 1987 as far as it related to flora and fauna was that the Narmada Control Authority would ensure in-depth studies on flora and fauna needed for implementation of environmental safeguard measures. It is the case of the respondents that number of studies were carried out and reports submitted. It was observed that the submergence area and catchment area on the right bank of the proposed reservoir exhibited a highly degraded ecosystem which was in contrast to the left bank area where there was fairly good forest cover which formed part of Shoolpaneshwar Wildlife Sanctuary. With regard to the study of fauna, the said report indicated that a well-balanced and viable ecosystem existed in the Shoolpaneshwar Sanctuary. Moreover, with the construction of dam, water availability and soil moisture will increase and support varieties of plants and animals.

113. It was also contended on behalf of petitioners that the whole project will have serious impacts on health, both around the submergence area and in the command. The preventive aspects had not been given attention. There was no linkage between the studies and work.

114. On behalf of State of Gujarat, it was contended that large number of studies had been carried out on the health profile of villagers including studies on water related diseases in SSP command area including the area downstream of the dam. The study of M.S. University in 1983 and other studies concluded that the most common diseases in the basin were Malaria, Scabies, Dysentery and Diarrhoea. Of these only a threat to Malaria needed to be of concern. The study concluded that the incidence of hygiene related diseases other than Malaria could be reduced by better water availability. The

Gujarat Work Plan covered villages within 10 KMs radius of the reservoir including resettled population and made provision for the monitoring, surveillance and control of Malaria. The principal features of the Gujarat Work Plan included establishment of a hospital at Kevadia near the dam site, strengthening of laboratory facility including establishment of mobile unit residual insecticidal spraying operations etc. This showed that the area of public health was in no way being neglected.

115. The petitioner was also critical of the functioning of the Environmental Subgroup as it was contended that the claims of the studies and progress report were accepted at the face value and without verification. It was also contended that the Ministry of Environment and Forests had grossly abdicated its responsibility. This submission was based on the premise that clearance, which had been granted, had lapsed and the Ministry of Environment and Forests did not insist on the Ministry of Water Resources for its renewal and further more the Ministry of Environment and Forests had not taken any cognizance of the criticism about environmental aspects contained in the Morse Committee Report. Lastly the Five Member Group in its first report was critical in many respects and pointed out studies which had remained incomplete but no cognizance was taken by the Ministry of Environment and Forests. The repeated abdication, it was submitted, of the responsibility by the Ministry of Environment and Forests indicated that it was not taking the whole issue with the seriousness it deserved.

116. On behalf of the State of Gujarat, it was contended that various alleged dangers relating to environment as shown by the petitioners were mostly based on the recommendations of the Morse Committee Report and Five Member Group. While the report of Morse Committee does not require our attention, the same not having been accepted either by the World Bank or the Government of India. Para 4.5.2 of the report of Five Member Group which relates to creation of the Environment Sub-group commends its establishment, its observation about its powers is as follows:

4.5.2. It must be noted that the Environmental Sub-group is not a body which merely observes and reports, but watchdog body which can recommend even the stoppage of work if it feels dissatisfied with the progress on the environment front. The recommendations of the Environmental Sub-Group will have to be considered by the NCA, and if there is any difference of opinion at that level, it will have to be referred to the Review Committee, which has the Minister of Water and Environment and Forests as a member. *It seems doubtful whether any more effective mechanism could have been devised or made to work within the framework of our existing political and administrative structures, particularly in the context of a federal system.* Secretary (Environment & Forests) has, in fact, been given a special position in the NCA inasmuch as he can insist on matters being referred to the Review Committee and at the Review Committee the Minister of Environment and Forests forcefully plead the environmental cause; he can also make the environmental point of view heard at the highest level. If in spite of all these arrangements, the environmental point of view fails to be heard adequately, and if project construction tends to take an over-riding precedence, that is a reflection of the relative political importance of these two points of view in our system.

This can be remedied only in the long term through persuasion and education, and not immediately through institutional arrangements which run counter to the system.

(Emphasis added)

Apart from the fact that we are not convinced that construction of the dam will result in there being an adverse ecological impact there is no reason to conclude that the Environmental Sub-group is not functioning effectively. The group which is headed by the Secretary, Ministry of Environment and Forests is a high powered body whose work cannot be belittled merely on the basis of conjectures or surmises.

117. Sh. Shanti Bhushan, learned Senior Counsel while relying upon *A.P. Pollution Control Board v. Professor M.V. Nayadu* submitted that in cases pertaining to environment, the onus of proof is on the person who wants to change the status quo and, therefore, it is for the respondents to satisfy the Court that there will be no environmental degradation.

118. In *A.P. Pollution Control Board's* case this Court was dealing with the case where an application was submitted by a company to the Pollution Control Board for permission to set up an industry for production of "BSS Castor Oil Derivatives". Though later on a letter of intent had been received by the said company, the Pollution Control Board did not give its no-objection certificate to the location of the industry at the site proposed by it. The Pollution Control Board, while rejecting the application for consent, inter alia, stated that the unit was a polluting industry which fell under the red category of polluting industry and it would not be desirable to locate such an industry in the catchment area of Himayat Sagar, a lake in Andhra Pradesh. The appeal filed by the company against the decision of the Pollution Board was accepted by the appellate authority. A writ petition was filed in the nature of public interest litigation and also by the Gram Panchayat challenging the order of the appellate authority but the same was dismissed by the High Court. On the other hand, the writ petition filed by the company was allowed and the High Court directed the Pollution Board to grant consent subject to such conditions as may be imposed by it.

119. It is this decision which was the subject-matter of challenge in this Court. After referring to the different concepts in relation to environmental cases like the 'precautionary principle' and the 'polluter-pays principle', this Court relied upon the earlier decision of this Court in *Vellore Citizens' Welfare Forum v. Union of India* and observed that there was a new concept which places the burden of proof on the developer or industrialist who is proposing to alter the status quo and has become part of our environmental law. It was noticed that inadequacies of science had led to the precautionary principle and the said 'precautionary principle' in its turn had led to the special principle of burden of proof in environmental cases where burden as to the absence of injurious effect of the actions proposed is placed on those who want to change the status quo. At page 735, this Court, while relying upon a report of the International Law Commission, observed as follows:

The precautionary principle suggests that where there is an identifiable risk of serious or irreversible harm, including, for example, extinction of species, widespread toxic pollution is major threats to essential ecological processes, it may be appropriate to place the burden of proof on the person or entity proposing the activity that is potentially harmful to the environment.

120. It appears to us that the 'precautionary principle' and the corresponding burden of proof on the person who wants to change the status quo will ordinarily apply in a case of polluting or other project or industry where the extent of damage likely to be inflicted is not known. When there is a state of uncertainty due to lack of data or material about the extent of damage or pollution likely to be caused then, in order to maintain the ecology balance, the burden of proof that the said balance will be maintained must necessarily be on the industry or the unit which is likely to cause pollution. On the other hand where the effect on ecology or environment of setting up of an industry is known, what has to be seen is that if the environment is likely to suffer, then what mitigative steps can be taken to offset the same. Merely because there will be a change is no reason to presume that there will be ecological disaster. It is when the effect of the project is known then the principle of sustainable development would come into play which will ensure that mitigative steps are and can be taken to preserve the ecological balance. Sustainable development means what type or extent of development can take place which can be sustained by nature/ ecology with or without mitigation.

121. In the present case we are not concerned with the polluting industry which is being established. What is being constructed is a large dam. The dam is neither a nuclear establishment nor a polluting industry. The construction of a dam undoubtedly would result in the change of environment but it will not be correct to presume that the construction of a large dam like the Sardar Sarovar will result in ecological disaster. India has an experience of over 40 years in the construction of dams. The experience does not show that construction of a large dam is not cost effective or leads to ecological or environmental degradation. On the contrary there has been ecological upgradation with the construction of large dams. What is the impact on environment with the construction of a dam is well-known in India and, therefore, the decision in A.P. Pollution Control Board's case (supra) will have no application in the present case.

122. Reference was made by Sh. Shanti Bhushan to the decision of the United States District Court in the case of *Sierra Club et. v. Robert F. Froehlke* 350bF.Supp. 1280(1973). In that case work had begun on Wallisville Project which, inter alia, consisted of a construction of a low dam. It was the case of the plaintiff that the construction of the project would destroy hundreds of thousands of trees and enormous grain, fish and other wild life will lose their habitat and perish. It was contended that the defendants were proceeding in violation of law by not complying with the requirements of National Environmental Policy Act, 1969, [NEPA]. Plaintiff, inter alia, sought an injunction for restraining the undertaking of the project in violation of the said Act. The District Court held that notwithstanding the substantial amount of work had already been done in connection with the project but the failure to satisfy full disclosure requirement of NEPA injunction would be issued to halt any further construction until requirements of

NEPA had been complied with, that even though there was no Act like NEPA in India at the time when environmental clearance was granted in 1987, nevertheless by virtue of Stockholm Convention and Article 21 of the Constitution the principles of Sierra Club decision should be applied.

123. In India notification had been issued under Section 3 of the Environmental Act regarding prior environmental clearance in the case of undertaking of projects and setting up of industries including Inter-State River Project. This notification has been made effective from 1994. There was, at the time when the environmental clearance was granted in 1987, no obligation to obtain any statutory clearance. The environmental clearance which was granted in 1987 was essentially administrative in nature, having regard and concern of the environment in the region. Change in environment does not per se violate any right under Article 21 of the Constitution of India especially when ameliorative steps are taken not only to preserve but to improve ecology and environment and in ease of displacement, prior relief and rehabilitation measures take place pari passu with the construction of the dam.

124. At the time when the environmental clearance was granted by the Prime Minister whatever studies were available were taken into consideration. It was known that the construction of the dam would result in submergence and the consequent effect which the reservoir will have on the ecology of the surrounding areas was also known. Various studies relating to environmental impact, some of which have been referred to earlier in this judgment, had been carried out. There are different facets of environment and if in respect of a few of them adequate data was not available it does not mean that the decision taken to grant environmental clearance was in any way vitiated. The clearance required further studies to be undertaken and we are satisfied that this has been and is being done. Care for environment is an on going process and the system in place would ensure that ameliorative steps are taken to counter the adverse effect, if any, on the environment with the construction of the dam.

125. Our attention was also drawn to the case of Tennessee Valley Authority v. Hiram G. Hill 437 US 153 : 57 L Ed 2d 117 : 98 SCt 2279 where the Tennessee Valley Authority had begun construction of the Tellico Dam and reservoir project on a stretch of Little Tennessee River. While major portion of the dam had been constructed the Endangered Species Act 1973 was enacted wherein a small fish popularly known as the "Snail darter" was declared an endangered species. Environmental groups brought an action in the United States District Court for restraining impounding of the reservoir on the ground that such an action would violate the Endangered Species Act by causing the snail darter extinction. The District Court refused injunction but the same was granted by the United States Court of Appeal. On further appeal the US Supreme Court held that the Endangered Species Act prohibited the authority for further impounding the river. The said decision has no application in the present case because there is no such act like the Endangered Species Act in India or a declaration similar to the one which was issued by the Secretary of the Interior under that Act. What is, however, more important is that it has not been shown that any endangered species exists in the area of impoundment. In

Tennessee Valley Authority case it was an accepted position that the continued existence of snail darter which was an endangered species would be completely jeopardised.

126. Two other decisions were referred to by Sh. Shanti Bhushan - Arlington Coalition on Transportation v. John A. Volpe 458 F.2d 1323 (1972) and Environmental Defense Fund, Inc. v Corps of Engineers of United States Army 325 F. Supp.749 (1971). In both these decisions it was decided that the NEPA would be applicable even in case of a project which had commenced prior to the coming into force of the said Act but which had not been completed. In such cases there was a requirement to comply with the provisions of NEPA as already noticed earlier. The notification under Section 3 of the Environment Protection Act cannot be regarded as having any retrospective effect. The said notification dated 27th January 1994, inter alia, provides as follows:

Now, therefore, in exercise of the powers conferred by Sub-section (1) and Clause (v) of Sub-section (2) of Section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with Clause (d) of Sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs that on and from the date of publication of this notification in the Official Gazette expansion or modernization of any activity (if pollution load is to exceed the existing one) or a new project listed in Schedule I to this notification, shall not be undertaken in any part of India unless it has been accorded environmental clearance by the Central Government in accordance with the procedure hereinafter specified in this notification.

This notification is clearly prospective and inter alia prohibits the undertaking of a new project listed in Schedule I without prior environmental clearance of the Central Government in accordance with the procedure now specified. In the present case clearance was given by the Central Government in 1987 and at that time no procedure was prescribed by any statute, rule or regulation. The procedure now provided in 1994 for getting prior clearance cannot apply retrospectively to the project whose construction commenced nearly eight years prior thereto.

#### RELIEF AND REHABILITATION

127. It is contended by the petitioner that as a result of construction of dam over 41,000 families will be affected in three States spread over 245 villages. The number of families have increased from 7000 families assessed by the Tribunal. It was further contended that the submergence area can be broadly divided into two areas, fully tribal area which covers the initial reach of about 100 or so villages which are almost 100 % tribal and hilly. These include all the 33 villages of Maharashtra, all 19 of Gujarat and many of the Madhya Pradesh. The second part of the submergence area is the mixed population area on the Nimad plains with a very well developed economy that is well connected to the mainstream. While the tribal areas are stated to be having a rich and diverse resource base and the self sufficient economy, the lack of so-called modern amenities like roads, hospitals and schools are far more a reflection of the neglect and disregard by the Government over the last fifty years than on anything else. Of the 193 villages stated to be affected by Sardar Savorar submergence 140 lie in the Nimad plains. The population

of these villages are a mixture of caste and tribal and these villages have all the facilities like schools, post offices, bus service etc.

128. It was contended that whereas the project authorities talk only about the families affected by submergence, none of the other families affected by the project are considered as PAFs nor has any rehabilitation package been designed for them. These non-recognised categories for whom no rehabilitation package is given are stated to be those persons living in submergence area who are not farmers but are engaged in other occupation like petty traders, village shopkeepers who are to be affected by submergence; colony affected people whose lands were taken in 1960 to build the project colony, warehouses etc.; canal affected people who would be losing 25 per cent of their holdings because of the construction of the canals; drainage affected people whose lands will be acquired for drainage; 10,000 fishing families living downstream whose livelihood will be affected; lands of the tribals whose catchment treatment area has been carried out; persons who are going to be affected by the expansion Shoolopaneshwar Sanctuary; persons going to be affected by Narmada Sagar Project and Garudeshwar Weir. It was contended that there was an urgent need to assess comprehensively the totality of the impact and prepare category specific rehabilitation policies for all of them.

129. It was also submitted that the total number of affected families in all the three States as per the Master Plan prepared by the Narmada Control Authority is 40727. According to the petitioner, however, this figure is an under-estimate and the estimate of the land required for these PAFs is also on a much lower side. The basis for making this submission is:

1] In each village there are many persons left out of the Government list of declared PAFs. These are joint holders [non recognised as landed oustees or PAFs] and the adult sons.

2] Incorrect surveys have been conducted and the affected persons have serious apprehensions about the validity of the surveys since at many places the level markings are suspect, in many cases the people affected at higher levels have been given notices for lower levels, many others at the same levels have been left out and so on. It is also alleged that there have been short-comings in the policies and if they are corrected many more oustees will be entitled to PAFs status. Further more the cut off date for PAFs in Madhya Pradesh including adult son is linked to the date of issuance of notification. Since land acquisition process is still incomplete the number of adult sons entitled to land would increase with the issuance of fresh Section 4 Notification.

130. From the aforesaid it was contended that the total impact in terms of number of oustees as well as land entitlement will be much larger than what is considered in the Master Plan.

131. It is also submitted that there was major lacunae in the said policy like the three States having dissimilar policy for R&R. This difference in rehabilitation packages of different States, with the package of Gujarat being more favourable, is leading to a

situation where the oustees are forced to shift to Gujarat. The other lacunae which are stated to have many serious problems are alleged to be non provision for fuelwood and grazing land with fodder. No provision for rehabilitation of people involved in non-agricultural occupation. According to the petitioner the number of affected people even by submergence have been underestimated. The policy regime governing them has many serious lacunae. The increase in the numbers is due to lack of proper surveys and planning and the provision of just and due entitlements to the PAFs. Since this process of providing just entitlements is still incomplete, and the policies need a thorough review, the numbers and entitlements are likely to go up further. Even the magnitude of the task of R&R cannot be assessed properly till the above are considered and proper policies introduced.

132. It is also contended that before embarking on the Sardar Sarovar Project it was necessary that the Master Plan for rehabilitation of the families to be affected is completed. According to the petitioner the Master Plan which was submitted in the Court cannot be regarded as an acceptable Master Plan inasmuch as it has no mention of people affected by Sardar Sarovar project other than those affected by submergence and it has no estimate of resource base of the oustees in their original village. Further the plan makes no estimation of the forest land, grazing land and resources being used by the oustees. The Master Plan persists with the discriminatory and differential policies which are less than just to the oustees. There is also no planning for community resettlement even though the Award of the Narmada Tribunal made detailed provision regarding rehabilitation of the oustees which required that there should be village wise community rehabilitation.

133. In support of this contention reliance is placed on the following stipulation for rehabilitation contained in the Award of the Narmada Tribunal "That Gujarat shall establish rehabilitation villages in Gujarat in the irrigation command of the SSP on the norms hereafter mentioned for rehabilitation of the families who are willing to migrate to Gujarat." The submission is that no specific rehabilitation village, as envisaged by the Tribunal's Award, has been established in Gujarat. The issue of community resettlement is stated to be not merely an issue of community facility but is a more fundamental issue. The issue is really one of preserving social fabric and community relation of the oustees which, it is alleged, is being destroyed due to dispersal of the community who are being resettled at different sites.

134. Dealing with the situation of those oustees who have been resettled in Gujarat it is submitted by the petitioner that there are large number of grievances of the said oustees in 35 re-settlement sites. With the passage of time the number of problems overall would become much more, is the contention. The petitioner finds fault with the quality of land which has been given in Gujarat to the oustees contending that large number of oustees have been given land outside the command area of irrigation and in some re-settlement sites there is a serious water-logging problem. It also contends that though some amenities have been provided but they are not adequate. It is also the case of the petitioner that sufficient land for resettlement of the oustees from Madhya Pradesh is not available in Gujarat despite the claim of the State of Gujarat to the contrary.

135. With regard to Maharashtra it is contended by the petitioner that the official figure of the total number of PAFs affected in Maharashtra is not correct and the number is likely to be more than 3113 PAFs estimated by the State of Maharashtra. Further-more adequate land of desired quality has not been made available for resettlement till 90 mtr. and even thereafter. Reference is made to the affidavit of the State of Maharashtra in which it is stated that it proposes to ask for the release of 1500 hectares of forest land for resettlement and the submission on behalf of the petitioner is that release of such land shall be in violation of Forest Conservation Act, 1980 and is not in public interest for forest cover will be further depleted.

136. With regard to the State of Madhya Pradesh it is submitted that as per the award the PAFs have a right to choose whether to go to Gujarat or to stay in the home State. The State of Madhya Pradesh is stated to have planned the whole re-settlement based on the assumption that overwhelming proportion of oustees entitled to land will go to Gujarat yet even for the limited number of oustees who are likely to stay in Madhya Pradesh the submission is that no land is available. The petitioner also disputes the averment of the State of Madhya Pradesh that the oustees have been given a choice as to whether they would like to go to Gujarat or stay in the home State. According to the petitioner the majority of the oustees would prefer to stay in the home State that is Madhya Pradesh but sufficient land for their resettlement in Madhya Pradesh is not available. According to the petitioner the State of Madhya Pradesh has stated that it does not have land for any PAFs above 830 and even for 830 PAFs the land is not available. It is also submitted that the Madhya Pradesh Government cannot wriggle out of its responsibility to provide land for the oustees by offering them cash compensation. The petitioner finds fault with the effort of the State of Madhya Pradesh to push the oustees to Gujarat whose rehabilitation scheme is more attractive and beneficial than that of Madhya Pradesh.

137. The petitioner further contends that one of the fundamental principle laid down is that all the arrangements and resettlement of the oustees should be made one year in advance of submersion. In B.D. Sharma v. Union of India's case this Court has held that resettlement and rehabilitation has to be done at least six months in advance of submersion, complete in all respects. It is, therefore, contended that since offers to the Madhya Pradesh oustees affected at 90 mtr. to be settled in Madhya Pradesh has not been made, there cannot be any question of further construction till one year after the resettlement of these PAFs at 90 mtr.

138. The petitioner is also critical of the functioning of the R&R Sub-group and it is contended that the said Sub-group has not taken any cognizance of the various issues and problems enumerated by the petitioner. It is submitted that in assuring that the relief and rehabilitation arrangements are being done the said R&R Sub-group merely accepts the assertions of the Government rather than verifying the claims independently. There is also a complaint regarding the manner in which the R&R Committee takes decision on the spot when it makes frequent visits. It is contended that the decisions which are taken in an effort to solve the grievances of the oustees is done in the most insensitive way. The R&R Sub-group, it is contended, is an official agency of the Government itself being a Sub-group of the NCA, which is pushing the project ahead and the question raised by the

petitioner is as to how can the same body which is building a project and executing the R&R be also monitoring it.

139. It is a case of the petitioners that there is a need for independent monitoring agency in the three States who should be asked to monitor the R&R of the oustees and see to the compliance with the NDWT award. No construction should be permitted to be undertaken without clearance from this authority. Lastly it is contended that large number of grievances are persisting even after twenty years and the pace of resettlement has been slow. The petitioner seems to have contended that the relief and rehabilitation can be manageable only if the height of the dam is significantly lessened which will reduce submersion and displacement of people.

140. In order to consider the challenge to the execution of the project with reference to Relief and Rehabilitation it is essential to see as to what is the extent and the nature of submergence.

141. The Sardar Sarovar Reservoir level at 455 ft. would affect 193 villages in Madhya Pradesh, 33 villages in Maharashtra and 19 villages in Gujarat. The submergence villages are situated on the banks of river Narmada having gentle to steep slopes of the Satpura hills. A village is considered affected even when the water level touches the farm/hut at lowest level. It may be noted that only 4 villages (3 villages in Gujarat and 1 village in Madhya Pradesh) are getting submerged fully and the rest 241 villages are getting affected partially.

142. The state-wise land coming under submergence (category-wise) is given below:

STATES (In Hectares)	Sr.	Type of land	GUJARAT	MAHA- RASHTRA	MADHYA PRADESH	TOTAL	No.
	1	Cultivated land	1877	1519	7883	11279	2
	2	[Forest Land	4166	6488	2731	13385	3
	3	Other land	1069	1592	10208	12869	including river bed
		Total land	7112	9599	10822	37533	

143. The aforesaid table shows that as much as 12869 hectares of the affected land is other than agricultural and forest and includes the river bed area.

144. When compared to other similar major projects, the Sardar Sarovar Project has the least ratio of submergence to the area benefited (1.97% only). The ratio of some of the existing schemes is as much as 25% as can be seen from the table below:

Sr.	Name of Project	State	Benefited Area (in ha)	Submerged area (in ha)	Irrigation area (in ha)	Percentage of submergence to irrigated area	No. of villages affected	Area per ha.
1.	Kirakud Onssa		251150	73892	3.40	29.42		
2.	Shriram-sagar	Andhra Pradesh	230679	44517	5.24	19.14		
3.	Gandhisagar	Madhya Pradesh	503200	66186	7.60	13.15	4	Paithan
4.		Maharashtra	278000	35000	7.94	15.29	5.	Tungbhadra
5.		Karnataka	372000	37814	9.84	10.16	6.	Pench
6.		Maharashtra	94000	7750	12.13	8.24	7.	Nagarjun-sagar
7.		Andhra Pradesh	895000	28500	31.40	3.18	8.	Bhakra
8.		Himachal Pradesh	676000	16800	40.24	2.48	9	Sardar Sarovar
9.		Gujarat	1903500	37533	50.71	1.97		

145. Countering the assertion that the construction of the dam would result in large scale relocation and uprooting of tribals, the factual position seems to be that the tribals constitute bulk of PAFs in Gujarat and Maharashtra, namely, 97% and 100% respectively. In the case of Madhya Pradesh, the tribals PAFs are only 30% while 70% are non-tribals.

146. The tribals who are affected are in indigent circumstances and who have been deprived of modern fruits of development such as tap water, education, road, electricity, convenient medical facilities etc. The majority of the project affected families are involved in rain-fed agricultural activities for their own sustenance. There is partial employment in forestry sector. Since the area is hilly with difficult terrain, they are wholly dependent on vagaries of monsoon and normally only a single crop is raised by them. Out of the PAFs of Madhya Pradesh who have re-settled in Gujarat, more than 70% are tribal families. Majority of the total tribal PAFs are stated to have already been re-settled in Gujarat after having exercised their option. It is the contention of the State of Gujarat that the tribals in large number have responded positively to the re-settlement package offered by that state.

147. In Madhya Pradesh, the agricultural lands of the tribal villages are affected on an average to the extent of 28% whereas in the upper reaches i.e. Nimad where the agriculture is advanced, the extent of submergence, on an average, is only 8.5%. The surveys conducted by HMS Gour University (Sagar) the Monitoring and Evaluation Agency, set up by Government of Madhya Pradesh, reveals that the major resistance to relocation is from the richer, non-tribal families of Nimad who fear shortage of agricultural labour if the landless labourers from the areas accept re-settlement.

148. The displacement of the people due to major river valley projects has occurred in both developed and developing countries. In the past, there was no definite policy for rehabilitation of displaced persons associated with the river valley projects in India. There were certain project specific programmes for implementation on temporary basis. For the land acquired, compensation under the provisions of Land Acquisition Act, 1894 used to be given to the project affected families. This payment in cash did not result in satisfactory resettlement of the displaced families. Realising the difficulties of displaced persons, the requirement of relief and rehabilitation of PAFs in the case of Sardar Sarovar Project was considered by the Narmada Water Disputes Tribunal and the decision and final order of the Tribunal given in 1979 contains detailed directions in regard to acquisition of land and properties, provision for land, house plots and civic amenities for the re-settlement and rehabilitation of the affected families. The resettlement policy has thus emerged and developed along with Sardar Sarovar Project.

149. The Award provides that every displaced family, whose more than 25% of agricultural land holding is acquired, shall be entitled to and be allotted irrigable land of its choice to the extent of land acquired subject to the prescribed ceiling of the State concerned with a minimum of two hectares land. Apart from this land based rehabilitation policy, the Award further provides that each project affected persons will be allotted a house plot free of cost and re-settlement and rehabilitation grant. The civic

amenities required by the Award to be provided at places of re-settlement include one primary school for every 100 families, one Panchayat Ghar, one dispensary, one seed store, one children's park, one village pond and one religious place of worship for every 500 families, one drinking water well with trough and one tree platform for every 50 families; approach road linking each colony to main road; electrification; water supply, sanitary arrangement etc. The State Governments have liberalised the policies with regard to resettlement and have offered packages more than what was provided for in the Award e.g the Governments of Madhya Pradesh, Maharashtra and Gujarat have extended the R&R benefits through their liberalised policies even to the encroachers, landless/displaced persons, joint holders, Tapu land (Island) holders and major sons (18 years old) of all categories of affected persons. The Government of Maharashtra has decided to allot one hectare of agricultural land free of cost even to unmarried major daughters of all categories of PAFs.

150. In the environmental clearance granted by the Ministry of Environment and Forests vide its letter dated 24th June, 1987, one of the conditions stipulated therein was for information from the project authorities on various action plans including Rehabilitation Master Plan of 1989.

151. It is the contention of the petitioners that the failure to prepare a "Master Plan" constitutes non-compliance with the requirement of the Tribunal's Award as well as environmental clearance. The Tribunal's Award does not use the expression 'Master Plan' but as per Clause XI Sub-clause IV(2)(iii), what is required, is as under:

The three States by mutual consultation shall determine within two years of the decision of the Tribunal, the number and general location of rehabilitation villages required to be established by Gujarat in its own territory.

152. It is with regard to this clause in the Award that, presumably, the aforesaid letter of 24th June, 1987 granting environmental clearance required the preparation of the new Master Plan.

153. In 1988 when the project was first cleared by the Planning Commission from investment angle, it was estimated that 12180 families would be affected in three States. Based on these numbers, the State Governments independently prepared their action plans and announced their R&R policy based on Tribunal's Award. On the basis of the said action plans the Narmada Control Authority submitted Rehabilitation Master Plan to the Ministry of Environment and Forests along with its letter dated 3/4.5.1989. Out of the total population, which is affected by the submergence, large number are tribals and hence attention was paid by the State Governments to liberalise their policies for protecting the socio-economic and cultural milieu and to extend the R&R benefits even to other categories of persons who were not covered by the Tribunal's Award. This led to the liberalisation of the R&R packages by the three States which packages have been referred to hereinabove. As a result of the liberalisation of the packages, the number of PAFs as estimated in 1992 by the State Governments were 30144. Based on the material available, the three State Governments prepared individual action plans in 1993 but those

action plans were integrated by the Narmada Control Authority first in 1993 and again in 1995 as an integrated Master Plan to present a holistic picture of the R&R programme. The Master Plan deals with socio-economic and cultural milieu of PAFs, the legal framework, R&R policy and procedures, implementation machinery, organisation for R&R, monitoring and evaluation, empowerment of women and youth, special care for vulnerable groups, financial plans for R&R etc. As per the 1990 Master Plan the total PAFs have increased to 40227 from 30144 due to addition of 100 more genuine PAFs in Maharashtra. This Master Plan includes village-wise, category-wise PAFs and their preference in R&R to settle in home State or in Gujarat. The reason for increase in number of PAFs has been explained in the Master Plan and the reasons given, inter alia, are:

(a) After C WC prepared backwater level data, the number of PAFs in Madhya Pradesh (MP) increased by 12000 PAFs as their houses are affected in a 1 in 100 years flood.

(b) Government of Gujarat (GOG) included major sons of the dyke villages as PAFs.

(c) Cut off date for major sons was extended by GOG and Government of Maharashtra (GOM).

(d) PAFs affected in MP, have increased due to delay in publication of Section 4 notification under the Land Acquisition Act.

(e) Persons socially or physically cut off due to impounding of water in reservoir, are also considered as PAFs by all the three States.

(f) All the three States decided to consider encroachers as PAFs.

(g) Major unmarried daughters in Maharashtra are considered as a separate family by Government of Maharashtra,

(h) Some genuine PAFs were earlier left out (as many stayed in remote areas or used to undertake seasonal migration to towns and developed areas in search of casual work).

154. As far as the State of Gujarat is concerned, its contention is that the task of R&R is not impossible as recognised by the FMG-I in its 1994 report and according to the State, it is fully ready and prepared to re-settle in Gujarat all the PAFs upto FRL 455 ft.

155. On 13th November, 1996, a meeting of the Review Committee of the Narmada Control Authority chaired by the Union Minister of Water Resources was held. This meeting was attended by the Chief Ministers of all the States including Rajasthan and representatives of Ministry of Environment and Forests, Ministry of Social Justice and Empowerment, Government of India. In the meeting it was unanimously decided that the reviews of the implementation of resettlement and rehabilitation measures will be undertaken for every five meter height of the dam jointly by the concerned R&R Subgroup and Environmental Sub-group so that work could progress pari passu with the

implementation measures. In its meeting held on 6th January, 1999, R&R Sub-Group of Narmada Control Authority observed that arrangements made by the States for R&R of the balance families pertaining to the dam height EL 90 meter were adequate and a meeting of the party States should be convened shortly to finalise the action plan. Pursuant thereto a special Inter-State Meeting was convened under the chairmanship of the Secretary to the Government of India, Ministry of Social Justice and Empowerment on 21 st January, 1999 at New Delhi and action plan for re-settlement and rehabilitation for balanced families of dam height EL 90 meter was finalised for implementation by the States. It is the case of the State of Gujarat that it had issued notices and made offers in January, 1998 to PAFs affected at RL 90 meter in connection with the selection of land and their re-settlement in Gujarat. According to it, even in respect of PAFs affected at RL 95 meter, notices were issued in January, 1999 and to the PAFs included in the subsequent list, notices were issued in September 1999. The process of land selection by PAFs who had opted to resettle in Gujarat at RL 95 meter was already started. According to the Union of India, the Master Plan was under implementation and the progress of R&R at various elevations of dam viz. EL 90 meter, EL 95 meter, EL 110 meter and FRL 138.68 meter has been made.

156. The measures which have been implemented for sustainable development with regard to preserving the socio-cultural environment of the displaced persons in the States of Maharashtra, Gujarat and Madhya Pradesh are stated to be as follows:

Three choices to the people for the selection of relocation sites.

Integration of the displaced person with the neighbouring villages by organising medical check-up camps, animal husbandry camps, festivals, eye camps, rural development seminar for village workers etc.

Establishment of rehabilitation committees at different levels,

Respect of traditional beliefs, rituals and rights at the starting of house construction, the day and time of leaving the old house and village and the day and time of occupying the new house etc.

The sacred places at the native villages are being recreated along with their settlements at new sites.

Installation of all the religious deities with the due consultation of religious heads.

Promotion of cultural milieu viz. Social festivals, religious rights, rights of passage, presence of priests, shaman, kinsmen, clansmen etc.

Special consideration for the preservation of holistic nature of the culture.

Proper use of built-in-mechanism of cultural heritage of the displaced persons.

Launching of culturally appropriate development plan.

Genuine representation of the traditional leader.

157. The Tribunal had already made provision of various civic amenities which were further liberalised by the State Governments during implementation. The existing development programmes were strengthened for ensuring sustainable development at the rehabilitation sites. These were Integrated Rural Development Programme (IRDP) for agriculture, business and village industries; Integrated Child Development Scheme (ICDS) for nutrition, health and education; Jawahar Rojgar Yojna (JRY); aids for improved seeds, fertilizers, irrigation, animal husbandry; Training Rural Youth for self-employment (TRYSEM); Employment Guarantee Scheme (EGS), Social Assistance; Industrial Training Institute (ITI); Tribal Development Programme (TDP), financial benefits to the backward classes, economically weaker sections, tribals and other backward classes (OBC), eye camps, subsidies to farmers (seed, tractorisation, fertilizers, diesel, etc.) agricultural prices support subsidy etc.

158. Other benefits which were extended for improving the quality of life of the resettled PAFs included fodder farm, mobile sale, shop of fodder, seeds cultivation training, initial help in land preparation for agricultural activities, better seeds and fertilizers, access to finance, special programme for women in the traditional skills entrepreneurship development, employment skill formation, different plantation programmes, special emphasis for pasture management, environment awareness and education programme, programmes for bio-gas/smokeless chulhas, safe drinking water supply, electricity, lift irrigation, fertilizers kit distribution, gypsum treatment of soil etc.

159. The project authorities in these three States of Madhya Pradesh, Gujarat and Maharashtra represented that comprehensive health care was available in tribal areas where the displaced families had been re-settled. It was contended that extensive preventive health measures like mass immunization, anti-malaria programme, family welfare programmes, child development schemes etc. had been undertaken. What is important is that primary health centres were established at relocation sites for all necessary health facilities to the PAFs.

160. The submission on behalf of Union of India was that there was a well- established mechanism of Government of India for coordination and monitoring of Re-settlement & Rehabilitation (R&R) programmes in case of Sardar Sarovar Project. The R&R Subgroup and Rehabilitation Committee of Narmada Control Authority are responsible for applying its independent mind on R&R. The Sub-group convenes its meeting regularly to monitor and review the progress of R&R while Rehabilitation Committee visits the submergence areas/relocation sites to see whether the rehabilitation is taking place physically and to hear the individual problems of the PAPs. The R&R group, keeping in view the progress of relief and rehabilitation, has not permitted the height to be raised, until and unless it is satisfied that adequate satisfactory progress has been made with regard to R&R. Whereas at an earlier point of time in 1994, the construction schedule had required the minimum block level to be raised to 85 meters, the R&R Sub-group had permitted the same to be

raised to EL 69 meter only during that period to match the R&R activity. It was in the meeting of R&R Subgroup on 6th January, 1999 after the R&R Sub-group had reviewed the progress and had satisfied itself that the land for re-settlement in Gujarat, Maharashtra and Madhya Pradesh, which were available, was more than required for the re-settlement of the balanced PAFs that it cleared the construction upto the dam height EL 90 meters. The action plan for the same had been approved and is under implementation by the States concerned.

161. The petitioners had contended that no proper surveys were carried out to determine the different categories of affected persons as the total number of affected persons had been shown at a much lower side and that many had been denied PAF status. From what is being stated hereinabove, it is clear that each State has drawn detailed action plan and it is after requisite study had been made that the number of PAFs have been identified. The number has substantially increased from what was estimated in the Tribunal's Award. The reason for the same, as already noticed, is the liberalisation of the R&R packages by the State Governments. Except for a bald assertion, there appears to be no material on which this Court can come to the conclusion that no proper surveys had been carried out for determining the number of PAFs who would be adversely affected by the construction of the dam.

162. Re-settlement and rehabilitation packages in the three States were different due to different geographical, local and economic conditions and availability of land in the States. The liberal packages available to the Sardar Sarovar Project oustees in Gujarat are not even available to the project affected people of other projects in Gujarat. It is incorrect to say that the difference in R&R packages, the package of Gujarat being the most liberal, amounts to restricting the choice of the oustees. Each State has its own package and the oustees have an option to select the one which was most attractive to them. A project affected family may, for instance, chose to leave its home State of Madhya Pradesh in order to avail the benefits of more generous package of the State of Gujarat while other PAFs similarly situated may opt to remain at home and take advantage of the less liberal package of the State of Madhya Pradesh. There is no requirement that the liberalisation of the packages by three States should be to the same extent and at the same time, the States cannot be faulted if the package which is offered, though not identical with each other, is more liberal than the one envisaged in the Tribunal's Award.

163. Dealing with the contention of the petitioners that there were large number of persons who were living in the submergence area and were not farmers and would lose their livelihood due to loss of the community and/or loss of the river and were not being properly rehabilitated, Mr. Harish Salve, learned Senior Counsel contended that this averment was not true. According to him, all the families in the 105 hilly tribal villages were agriculturists, cultivating either their own land or Government land and all of whom would be eligible for alternative agricultural land in Gujarat. Only a small number of non-agriculturists, mainly petty shopkeepers were found in these villages of tribal areas. In Gujarat there were 20 such non-agriculturists families out of a total of 4600 affected families and all of these had been re-settled as per their choice so that they could restart

their business. In Maharashtra out of 3213 affected families, not a single family was stated to fall under this category. Amongst the affected families of Madhya Pradesh, the figure of such non-agriculturists family was also stated to be not more than couple of 100. In our opinion it is neither possible nor necessary to decide regarding the number of people likely to be so affected because all those who are entitled to be rehabilitated as per the Award will be provided with benefits of the package offered and chosen.

164. With regard to the colony affected people whose 1380 acres of land was acquired in six villages for the construction of a colony, most of the landholders had continued to stay in their original houses and about 381 persons were stated to have been provided permanent employment in the project works. At the time, the land was acquired in 1962-63, compensation was paid and in addition thereto, the Government of Gujarat devised a special package in August, 1992 providing ex-gratia payment upto Rs. 36000.00 to the land losers for purchase of productive assets or land for those who had not received employment in the project.

165. Dealing with the contention of the petitioners that there will be 23500 canal affected families and they should be treated at par to that of oustees in the submergence area, the respondents have broadly submitted that there is a basic difference in the impacts of the projects in the upstream submergence area and its impacts in the beneficiary zone of the command area. While people, who were oustees from the submergence zone, required re-settlement and rehabilitation, on the other hand, most of the people falling under the command area were in fact beneficiaries of the projects and their remaining land would now get relocated with the construction of the canal leading to greater agricultural output. We agree with this view and that is why, in the Award of the Tribunal, the State of Gujarat was not required to give to the canal affected people the same relief which was required to be given to the oustees of the submergence area.

166. Dealing with the contention of the petitioners that the oustees were not offered a chance to re-settle in Gujarat as a community and that there was a clear requirement of village-wise communication rehabilitation which had not been complied with, the contention of the respondents was that no provision of Tribunal's Award had been shown which caused any such obligation on the Government of Gujarat. What the Award of the Tribunal required is resettlement of the PAFs in Gujarat at places where civic amenities like dispensary, schools, as already been referred to hereinabove, are available.

167. Subsequent to the Tribunal's Award, on the recommendation of the World Bank, the Government of Gujarat adopted the principle of re-settlement that the oustees shall be relocated as village units, village sections or families in accordance with the oustees preference. The oustees' choice has actively guided the re-settlement process. The requirement in the Tribunal's Award was that the Gujarat shall establish rehabilitation villages in Gujarat in the irrigation command of the Sardar Sarovar Project on the norms mentioned for rehabilitation of the families who were willing to migrate to Gujarat. This provision could not be interpreted to mean that the oustees families should be resettled as a homogeneous group in a village exclusively set up for each such group. The concept of community wise re-settlement, therefore, cannot derive support from the above quoted

stipulation. Besides, the norms referred to in the stipulation relate to provisions for civic amenities. They vary as regards each civic amenity vis-a-vis the number of oustees families. Thus, one panchayat ghar, one dispensary, one childrens' park, one seed store and one village pond is the norm for 500 families, one primary school (3 rooms) for 100 families and a drinking water well with trough and one platform for every 50 families. The number of families to which the civic amenities were to be provided was thus not uniform and it was not possible to derive therefrom a standardised pattern for the establishment of a site which had nexus with the number of oustees' families of a particular community or group to be resettled. These were not indicators envisaging re-settlement of the oustees families on the basis of tribes, Sub-tribes, groups or sub-groups.

168. While re-settlement as a group in accordance with the oustees preference was an important principle/objective, the other objectives were that the oustees should have improved or regained the standard of living that they were enjoying prior to their displacement and they should have been fully integrated in the community in which they were re-settled. These objectives were easily achievable if they were re-settled in the command area where the land was twice as productive as the affected land and where large chunks of land were readily available. This was what the Tribunal's Award stipulated and one objective could not be seen in isolation of the other objectives.

169. The Master Plan, 1995 of Narmada Control Authority also pointed out that "the Bhils, who are individualistic people building their houses away from one another, are getting socialised; they are learning to live together". Looking to the preferences of the affected people to live as a community, the Government of Gujarat had basically relied on the affected families' decision as to where they would like to relocate, instead of forcing them to relocate as per a fixed plan.

170. The underlined principle in forming the R&R policy was not merely of providing land for PAFs but there was a conscious effort to improve the living conditions of the PAFs and to bring them into the mainstream. If one compares the living conditions of the PAFs in their submerging villages with the rehabilitation packages first provided by the Tribunal's Award and then liberalised by the States, it is obvious that the PAFs had gained substantially after their re-settlement. It is for this reason that in the Action Plan of 1993 of the Government of Madhya Pradesh it was stated before this Court that "therefore, the re-settlement and rehabilitation of people whose habitat and environment makes living difficult does not pose any problems and so the rehabilitation and re-settlement does not pose a threat to environment". In the affidavit of Dr. Asha Singh, Additional Director (Socio & CP), NVDA, as produced by the Government of Madhya Pradesh in respect of visit to R&R sites in Gujarat during 21st to 23rd February, 2000 for ascertaining the status relating to grievances and problems of Madhya Pradesh PAFs resettled in Gujarat, it was, inter alia, mentioned that "the PAFs had informed that the land allotted to them is of good quality and they take the crops of Cotton, Jowar and Tuwar. They also stated that their status has improved from the time they had come to Gujarat but they want that water should start flowing in the canals as soon as possible and in that case they will be able to take three crops in one year as their land is in the command area." Whereas the conditions in the hamlets, where the tribals lived, were not

good enough the rehabilitation package ensured more basic facilities and civic amenities to the re-settled oustees. Their children would have schools and children's park, primary health centre would take care of their health and, of course, they would have electricity which was not a common feature in the tribal villages.

171. Dealing with the contention of the petitioners that there was no provision for grazing land and fuel wood for the PAFs, it is rightly contended by the State of Gujarat that grazing land was not mandated or provided for in the Tribunal's Award but nevertheless, the grazing land of six villages was available for use of PAFs. It may be that the grazing land was inadequate but this problem will be faced by the entire State of Gujarat and not making such land available for them does not in any way violate any of the provisions of the Award.

172. With regard to providing irrigation facilities, most of the re-settlement of the project affected families were provided irrigation facilities in the Sardar Sarovar Project command area or in the command areas of other irrigation projects. In many of the out of command sites, irrigated lands were purchased. In cases where the irrigation facilities were not functioning, the Government of Gujarat had undertaken the work of digging tubewells in order to avoid any difficulty with regard to irrigation in respect of those oustees who did not have adequate irrigation facilities. It was contended that because of the delay in the construction of the project, the cut off date of 1 st January, 1987 for extending R&R facilities to major sons were not provided. The Tribunal's Award had provided for land for major sons as on 16.8.1978. The Government of Gujarat, however, extended this benefit and offered rehabilitation package by fixing the cut off date of 1.1.1987 for granting benefits to major sons. According to the Tribunal's Award, the sons who had become major one year prior to the issuance of the Notification for land acquisition were entitled to be allotted land. The Land Acquisition Notification had been issued in 1981-82 and as per the Award, it was only those sons who had become major one year prior to that date who would have become eligible for allotment of land. But in order to benefit those major sons who had attained majority later, the Government of Gujarat made a relaxation so as to cover all those who became major upto 1.1.1987. The Government of Gujarat was under no obligation to do this and would have been quite within its right merely to comply with the provisions of the Tribunal's Award. This being so, relaxation of cut off date so as to give extra benefit to those sons who attained age of majority at a later date, cannot be faulted or criticised.

173. Dealing with the contention of the petitioners that there is a need for a review of the project and that an independent agency should monitor the R&R of the oustees and that no construction should be permitted to be undertaken without the clearance of such an authority, the respondents are right in submitting that there is no warrant for such a contention. The Tribunal's Award is final and binding on the States. The machinery of Narmada Control Authority has been envisaged and constituted under the Award itself. It is not possible to accept that Narmada Control Authority is not to be regarded as an independent authority. Of course some of the members are Government officials but apart from the Union of India, the other States are also represented in this Authority. The project is being undertaken by the Government and it is for the Governmental authorities

to execute the same. With the establishment of the R&R Sub-group and Constitution of the Grievances Redressal Authorities by the States of Gujarat, Maharashtra and Madhya Pradesh, there is a system in force which will ensure satisfactory re-settlement and rehabilitation of the oustees. There is no basis for contending that some outside agency or National Human Rights Commission should see to the compliance of the Tribunal Award.

## MONITORING OF REHABILITATION PROGRAMME

174. The Ministry of Water Resources, Government of India is the Nodal Ministry for the Sardar Sarovar Project and other Union Ministries involved are the Ministries of Environment and Forests and Social Justice and Empowerment. As a consequence of the Tribunal's Award, Narmada Control Authority was created to co-ordinate and oversee the overall work of the project and to monitor the R&R activities including environmental safeguard measures. The Review Committee of the Narmada Control Authority consists of the Union Minister of Water Resources as its Chairman, the Union Ministry of Environment and Forests and the Chief Ministers of Gujarat, Madhya Pradesh, Maharashtra and Rajasthan as Members. This Review Committee may suo moto or on the application of any party State or the Secretary, Ministry of Environment and Forests review any decision of the Narmada Control Authority. In the Narmada Control Authority, Re-settlement & Rehabilitation (R&R) Subgroup has been created for closely monitoring the R&R progress. This Sub-group is headed by the Secretary, Government of India, Ministry of Social Justice & Empowerment and is represented by Members/Invitees of participating States, academic institutions having expertise in R&R, independent socio-anthropological experts and non-Governmental Organisations. The functions of this Sub-group are as follows:

1. To monitor the progress of land acquisition in respect of submergence land of Sardar Sarovar Project and Indira (Narmada) Sagar Project (ISP).
2. To monitor the progress of implementation of the action plan of rehabilitation of project affected families in the affected villages of SSP and ISP in concerned states.
3. To review the R&R action plan from time to time in the light of results of the implementation.
4. To review the reports of the agencies entrusted by each of the State in respect of monitoring and evaluation of the progress in the matter of re-settlement and rehabilitation.
5. To monitor and review implementation of re-settlement and rehabilitation programmes pari passu with the raising of the dam height, keeping in view the clearance granted to ISP and SSP from environmental angle by the Government of India and the Ministry of Environment and Forests.
6. To coordinate states/agencies involved in the R&R programmes of SSP and ISP.

7. To undertake any or all activities in the matter of re-settlement and rehabilitation pertaining to SSP and ISP.

#### REHABILITATION COMMITTEE

175. This Court vide order dated 9.8.1991 in B.D. Sharma v. Union of India and Ors. 1992 Suppl.(3) SCC 93 directed the formation of a Committee under the chairmanship of the Secretary, Ministry of Social Justice & Empowerment, Government of India to visit the submergence areas/re-settlement sites and furnish the report of development and progress made in the matter of rehabilitation. The Rehabilitation Committee headed by the Secretary, Government of India, Ministry of Social Justice and Empowerment and having representatives of the three State Governments as its members had been constituted. It is the case of the Union of India that this Committee visited regularly the various R&R sites and submergence villages in the three States and submitted reports to this Court from time to time. By order dated 24th October, 1994, this Court in the aforesaid case of B.D. Sharma (supra) observed that all the directions issued by the Court from time to time have been complied with and nothing more be done in the petition and the petition was disposed off. Most of the recommendations/observations as made by this Committee are stated to have been complied fairly by the States concerned.

176. In addition to the above, the officials of the Narmada Control Authority are also stated to be monitoring the progress of R&R regularly by making field visits. The individual complaints of the PAFs are attended and brought to the notice of the respective Governments.

#### GRIEVANCES REDRESSAL MECHANISM

177. The appeal mechanism has been established in the policy statements by all the three State Governments for the redressal of grievances of the PAFs. According to this mechanism, if a displaced person is aggrieved by the decision of the Rehabilitation Officers in respect of any R&R process, he may appeal to the concerned agency/officers.

178. Vide Resolution dated February 17, 1999, the Government of Gujarat set up a high-level authority called "Grievance Redressal Authority (GRA)" before whom the oustees already re-settled and to be re-settled in Gujarat could ventilate their grievances for redressal after their re-settlement till the process of re-settlement and re-habilitation is fully completed. The said Grievances Redressal Authority has Mr. Justice P.D. Desai, retired Chief Justice as its Chairman. This machinery had been established to:

A) create an Authority before whom oustees who have re-settled in the State of Gujarat can ventilate their grievances relating to the R&R measures taken by the State of Gujarat;

B) ensure that the oustees already settled and the oustees settled hereinafter in the R&R sites created for re-settlement and rehabilitation of the oustees from the States of Madhya Pradesh and Maharashtra receive all the benefits and amenities in accordance with the Award and the various Government resolutions made from time to time;

C) ensure that Gujarat oustees re-settled in Gujarat have received all the benefits and amenities due to them.

179. The Gujarat Rehabilitation Authority has installed a permanent in-house Grievances Redressal Cell (GRC) within Sardar Sarovar Punarvasavat Agency. The Grievances Redressal Cell deals with the grievances of the PAFs and the grievances redressal is undertaken by it in the following three ways.

i) Grievances Redressal Cell deals grievances in the regular course on the basis of applications i.e. by holding enquiries and implementing decisions taken pursuant thereto.

ii) Grievances redressal on the spot through mechanism of Tatkal Fariyad Nivaran Samiti.

iii) Grievances redressal under the mechanism of Single Window Clearance System.

180. Grievances Redressal Authority has surveyed sites in which PAFs have been resettled and has submitted reports to this Court from time to time which disclose substantial compliance with the terms of the Award and the rehabilitation package.

181. In its Fourth Report dated 15.11.1999, the Grievances Redressal Authority observed "pursuant to the grievances redressal measures taken by GRC, whose approach is positive and grievance redressal oriented, a considerable number of grievances have been resolved by extensive land improvement work done on agricultural land at different sites within a period of six months i.e. April-September, 1999".

182. The R&R Sub-group in its 20th field visit of the R&R sites in Gujarat on 12/13.1.2000 has noted as follows:

The Committee after the visit and from interaction with the PAFs, concluded that there is vast improvement in the conditions of PAFs at these R&R sites as compared to the grievances reported for the same sites during previous visits by the Committee/NCA officers. Assessing the perception of PAFs the Committee observed that the majority of PAFs are happy and joining mainstream of country's development.

183. The Grievances Redressal Cell has dealt with and decided a total of over 6500 grievances.

184. At the instance of Grievances Redressal Authority, an Agricultural Cell is set up in Sardar Sarovar Punarvasavat Agency with effect from 1 st July, 1999. This was done with an objective of enhancing the productivity of agricultural land allotted to PAFs by adopting of suitable farm management practices and in assisting in resolving land related grievances. Similarly, w.e.f. 1.5.1999, Medical Cells have been set up in Sardar Sarovar Punarvasavat Agency for ensuring effective functioning of medical infrastructure and providing organised system of supervising and monitoring and also for conducting health survey-cum-medical check up activities. The Grievance Redressal Authority has become an effective monitoring and implementing agency with regard to relief and rehabilitation

of the PAFs in Gujarat. Apart from resolving independent grievances of PAFs and enforcing the compliance of the provisions of the Award through its exhaustive machinery and mechanism, it is also trying to guide in respect of various other issues not covered by the provisions of the Award such as

- i) Vocational training of the oustees;
- ii) Review of Narmada oustees employment opportunity rules;
- iii) Issue relating to Kevadia Colony;
- iv) Issue relating to tapu land;
- v) Development of Kevadia as a tourist centre etc.

185. In Maharashtra, a local committee was constituted comprising of Additional Collector (SS), Divisional Forest Officer, Resettlement Officer and two representatives of the oustees nominated by the local Panchayat Samities from among the elected members of the village panchayats in the project affected villages/taluka. This Committee is required to examine the claims of the PAFs and give directions within a time frame and an appeal from its decision lies to the Commissioner. In addition thereto, vide notification dated 17th April, 2000 the Government of Maharashtra has set up a Grievances Redressal Authority in lines established by the State of Gujarat and Mr. Justice S.P. Kurdukar, retired Judge of this Court, has been appointed as its Chairman. This Authority is expected to be analogous to the Grievances Redressal Authority of Gujarat.

186. In Madhya Pradesh, the grievances of the PAFs have first to be made by a claim which will be verified by the patwari and then scrutinised by the Tehsildar. PAFs may file an appeal against the decision of R&R official before the District Collector who is required to dispose off the same within a period of three months. In the case of Madhya Pradesh also by Notification dated 30th March, 2000 the Government of Madhya Pradesh has constituted a Grievances Redressal Authority similar to the one in Gujarat with Mr. Justice Sohni, retired Chief Justice of Patna High Court as its Chairman.

#### INDEPENDENT MONITORING & EVALUATION AGENCIES

187. The Monitoring and Evaluation of the rehabilitation programme is also being carried out by the independent socio-anthropological agencies appointed by the State Governments of Maharashtra, Madhya Pradesh and Gujarat as well as Narmada Control Authority. These agencies, which are professional and academic institutes, conduct surveys and in-depth studies relating to PAFs in the submergence and rehabilitation villages. The main object of the monitoring is oriented towards enabling the management to assess the progress, identify the difficulties, ascertaining problem areas, provide early warning and thus call for corrections needed immediately.

188. The Center for Social Studies, Surat is the monitoring agency for the Government of Gujarat. This Institute has prepared 24 six monthly progress reports in relation to the resettlement of PAFs of submergence villages of Gujarat. Similarly for the project affected families of Madhya Pradesh/Maharashtra who have re-settled in Gujarat, the Government of Gujarat has appointed the Gujarat Institute of Development Research, Ahmedabad as the independent Monitoring and Evaluation Agency for monitoring R&R programmes.

189. In Madhya Pradesh the monitoring and evaluation had been carried out by Dr. H.S.Gaur University, Sagar and the same has been dis-engaged now and a new agency is being appointed. The findings of Dr. H.S. Guar University, Sagar indicated that displaced families in Madhya Pradesh are, by and large, happy with the new re-settlement in Gujarat and one of the main reason behind their happiness was that the shifting from hamlets had changed their socio-economic status.

190. In Maharashtra the monitoring and evaluation was earlier being done by the Tata Institute of Social Sciences, Mumbai. This agency had reported that overall literacy rate among project affected persons above six years of age is about 97%, while illiteracy in submergence villages was rampant. Further more the report showed that in the submergence villages, the tribals mostly relied on traditional healers for their ailments. Now the current scenario is that at R&R sites, health centres and sub-centres have been established.

191. It is thus seen that there is in place an elaborate network of authorities which have to see to the execution and implementation of the project in terms of the Award. All aspects of the project are supervised and there is a Review Committee which can review any decision of the Narmada Control Authority and each of the three rehabilitating States have set up an independent Grievances Redressal Authority to take care that the relief and rehabilitation measures are properly implemented and the grievances, if any, of the oustees are redressed.

192. On 9th May, 2000, this Court directed the State Governments of Gujarat, Madhya Pradesh and Maharashtra to file affidavits disclosing the latest status of resettlement and rehabilitation work for the existing as well as prospective oustees likely to be affected by raising the height of the dam.

193. Pursuant to the said direction affidavits on behalf of the three States have been filed and, in response thereto, the petitioners have also filed an affidavit

194. On behalf of the State of Gujarat the affidavit of Sh. V.K. Babbar, Commissioner (Rehabilitation) and Chief Executive Officer, Sardar Sarovar Punavasvat Agency [SSPA] has been filed, according to which at FRL 138.68 m. the status with regard to PAFs to be re-settled is stated to be as follows:

State	Total number	Balance of PAFs	PAFs to be resettled/	resettled in				
allotted	Gujarat	agricultural land	in Gujarat	Gujarat	4575	25		
Maharashtra	710	290	Madhya Pradesh	3280	10450	Total	18565	110765

195. It is the case of State of Gujarat that 8565 PAFs have been accommodated in 182 R&R sites fully equipped with the requisite civic amenities as provided by the Tribunal's award. The agricultural land allotted to these PAFs is 16973 hectares.

196. Dealing specifically with the status of PAFs at RL 90 mtr., 95 mtr. and 110 mtr. it is averred in the said affidavit that all the PAFs of Gujarat at RL 90 mtr. have been resettled and the balance PAFs of Madhya Pradesh and Maharashtra affected at RL 90 mtr. have already been offered R&R package in Gujarat. The process of re-settlement is continuing and reliance is placed on the observation of the GRA which has stated in its Fourth Report dated 15th November, 1999 that "There is substantial compliance of the Re-settlement and Rehabilitation measures as mandated by the Final Report of NWDI, including provision of civic amenities, and also of all the inter-linked provisions of the Government of Gujarat and that, therefore, PAFs from the States of Madhya Pradesh and Maharashtra affected upto the height of RL 90 mtr. can be accommodated as per their choice at these selected 35 sites in Gujarat."

197. With respect to the PAFs affected at RL 95 mtr. the affidavit states that the PAFs of Gujarat have already been settled and while the affected PAFs of Madhya Pradesh and Maharashtra have been offered R&R package in Gujarat in January 1999, September 1999 and January 2000. The RL 95 mtr. Action Plan for these PAFs has also been prepared by the Government of Gujarat in consultation with the Governments of Madhya Pradesh and Maharashtra and has been sent to the NCA. The case of the State of Gujarat, therefore, is that all the PAFs wanting to be re-settled in Gujarat have been offered the package but consent of all the PAFs has not so far been received but the Government of Gujarat has sufficient land readily available which can be allotted to the said PAFs as soon as they come and select the same.

198. With regard to the status of PAFs at RL 110 mtr. all the PAFs of Gujarat have been re-settled and 2761 PAFs [2642 of Madhya Pradesh and 119 of Maharashtra] remain to be re-settled in Gujarat and R&R package will be offered to them before November 2000. The land which is required to be allotted to them is stated to be around 6074 hectares and the State of Gujarat has in its possession 8146 hectares. The civic amenities in 40 new R&R sites are scheduled to be completed by December 2000 and these sites would serve to accommodate not only PAFs between RL 95 mtr. and RL 110 mtr. but would also serve to accommodate PAFs from submergence villages which would be getting affected at levels above RL 110 mtr. The Action Plan giving the village-wise details is said to have been sent to NCA in June 2000 for its approval.

199. According to the said affidavit the balance number of PAFs remaining to be resettled at Gujarat at FRL 138.68 mtr. is 10765. Taking into account that an additional area of 10% towards house plot and common civic amenities would be required in addition to the allotment of minimum 2 hectares of agricultural land, the total land requirement per PAF would be approximately 2.2 hectares. For planning purposes in respect of 10765 PAFs the land requirement would be about 23700 hectares. As against this requirement the status of land, as per the said affidavit, under different categories with the Government of Gujarat is stated to be as under:

Sr. No. PARTICULARS Land [In ha] 1. Land identified (offers received in respect of private land and Government land) 15716 ha. 2. Land available (private land for which price is approved by Expert Committee and offer/ counter offer conveyed and acceptance of land holder obtained. 480 ha 3. Land in possession ofSSPA/GOGin 12 districts 8416 ha Total 24612 ha,

200. It is averred that between March and 21 st June 2000 the land in possession as well as the land identified has increased considerably.

201. It has also been explained in the said affidavit that the Government of Gujarat has a well-established practice of procuring land for R&R at realistic market prices for willing sellers. Officers hold discussions with prospective sellers, verify the suitability of land and after the prices is settled the same is procured through legal process of Land Acquisition Act and consent awards are passed so that the PAPs are assured of undisputed legal title free from all encumbrances. This process of negotiated purchase has been streamlined. At the instance of the GRA, a retired judge of the High Court is now appointed as Chairman of the Expert Committee with retired senior Government Secretaries as its members. This Expert Committee oversees the exercise of purchase of suitable land at the market price. At the instance of the GRA, PAPs are being issued Sanads for the land allotted to them which will ensure provision of a proper legal document in their favour.

202. Dealing with the term of the Award to the effect that Gujarat shall acquire and make available a year in advance of the submergence before each successive stage, land and house sites for rehabilitation of the oustees families from Madhya Pradesh and Maharashtra who are willing to migrate to Gujarat, the affidavit states that the Gujarat Government has already identified sufficient land for accommodating the balance PAFs remaining to be re-settled in Gujarat at FRL 138.68 mtr. In respect of PAFs upto RL 110 mtr. Gujarat has sufficient land available to meet the R&R requirements but for the PAFs above RL 110 mtr. suitable land has already been identified and the same would be acquired and made available one year in advance of the submergence before each successive stage. The affidavit gives reason as to why it is not advisable for the State, at this stage, to acquire the total requirement of land for FRL in one go. What is stated in the affidavit is as follows:

i. Since at present GOG has sufficient land to meet R&R requirement to accommodate PAFs upto RL 110 m, it would not be necessary to acquire further land immediately, especially when the additional land would be required only after the R&R Sub-group and Environment Sub-group give approval for RL 95 m. to RL 110 m. after examining the preparedness at different stages. This would ensure that public money is not unnecessarily blocked for a long period.

ii. By acquiring land much before it would be required, problems of illegal trespass are likely to arise.

iii. The excess land would, by and large, remain fallow and no agricultural production would take place,

iv. If the land remains fallow for long the overall productivity of the land would be adversely affected.

v. All the time of allotment, the State Government would again have to spend a sizeable amount to remove weeds, bushes, small trees etc.

vi. The State Government would have to incur a sizeable amount to prevent tampering with the boundary marks, prevent neighbouring farmers removing the top soil or from diverting natural drains passing through their fields towards the land purchased for R&R etc.

203. The affidavit also gives facts and figures showing that all requisite civic amenities have been developed and made available at the R&R sites. Some of the salient features which are highlighted in this behalf are as under:

A three-room primary school is provided in all MP/MH sites irrespective of the number of families resettled.

A dispensary with examination room, medical equipment, medicines is provided in all MP/MH sites irrespective of the number of resettled families.

3439 PAFs (86%) out of the total MP/ MH PAFs resettled in Gujarat have availed of the Rs.45,000 financial assistance and built pucca core houses.

Overhead tanks for drinking water are provided in large R&R sites.

At the instance of GRA, toilets are being provided in the houses of PAFs with the help of NGOs.

204. The total cost incurred so far by the Government of Gujarat in providing the land and civic amenities upto May 2000 is stated to be 194 crores. The Grievances Redressal Cell is stated to have redressed large number of grievances of the PAFs whether they were related to land, grant of civic amenities or others. The salient features of working of the Grievance Redressal Cell is stated to be as follows:

At present 2 senior IAS officers with supporting staff are working exclusively for redressal of grievances.

A reasoned reply is given to the applicants. The applicant is also informed that if he is aggrieved with the decision he may prefer an appeal to GRA within thirty days.

The Single Window Clearance System's main objective is to proactively resolve grievances and to avoid delays in inter-departmental co-ordination.

Tatkal Fariyad Nivaran Samitis are held in the R&R sites to resolve grievance of the PAFs in an open forum.

The PAFs are being involved at every stage of grievance redressal. The works have been carried out in most cases by the PAFs.

The Agriculture Officers of the Agricultural Cell are actively helping, guiding the PAFs in their agricultural operations and upgrading their skills.

205. With a view to effectively rehabilitate and assimilate the PAPs Vasahat Samitis have been constituted in 165 R&R sites, consisting of 5 PAPs, one of whom is a female. This ensures the participation of the PAPs in the process of development and these Samitis are vested with the responsibility to sort out minor problems. With a view to ensure more effective participation in Panchayat affairs and better integration of PAPs an Order under Section 98 of the Gujarat Panchayats Act, 1993 has been issued by the Government of Gujarat providing that there shall be upto two invitees from amongst the PAPs depending upon the number of PAPs at the sites in the village Panchayat within whose jurisdiction the R&R are situated. Pursuant to this 196 PAPs have been inducted as invitees to then Village Panchayats. The salient features of the rehabilitation programme of the PAPs are as follows:

PAFs are given productive assets in kind (7000/PAFs) to purchase bullocks, bullock carts, oil engines etc.

PAFs are given subsistence allowance (Rs.4500/PAF) in cash to meet contingency needs in the initial period.

Vocational training is provided to PAFs for improving their income levels, priority being given to those dependents who are not entitled to be declared as PAFs on their own rights. Tool kits are supplied either free or with 50% subsidy.

NGOs are actively involved in all the rehabilitation activities such as conducting training classes.

PAFs are being covered by the ongoing developmental schemes of the Government (DRDA, Tribal Sub Plan etc.)

An Extension (Agriculture) officers has been appointed for approximately every 150 families to guide them in agriculture operation and assist them in day to day problems (getting ration cards, khedut khatavahis etc.)

In recent years focus is on empowering the PAFs and making them self dependent.

206. Medical cell has been set up for providing services and treatment to PAPs free of cost. The cell is headed by Deputy Director (Medical) and is having a nucleus of medical experts consisting of a physician, a pediatrician, a gynecologist, 21 MBBS doctors,

pharmacists etc. The salient features of the medical help programme for the benefit of PAPs is stated to be as follows:

The Medical Officers and paramedic staff are making house-to-house visits to motivate the PAPs to come forward to avail of the medical services

In all dispensaries, a full time multipurpose health worker (female) is available.

Multi-specialization diagnostic/ treatment camps are organised fortnightly, where advance investigations are diagnostic facilities like ECG, X-ray ultrasound are available.

Patients requiring further services are brought to Government hospitals or any other specialty hospital and necessary treatment given free of cost.

GOG has placed an order for a mobile medical hospital equipped with diagnostic and treatment equipments. A comprehensive health survey and medical check up covering 29423 PAPs has been completed. A special record system of family health folder and health profile of each PAP is prepared.

Nutrition supplements are given to children (upto 6 years), expectant and lactating mothers through the Integrated Child Development Scheme (ICDS).

Special food supplement in the form of "Hyderabad Mix" is given to malnourished children and vulnerable target groups.

School going children are covered under the Mid-Day Meal Scheme.

Under TB Control, all chest symptomatic persons are screened by special examinations like sputum microscopy, X-ray, blood tests and persons found positive for TB are given domiciliary treatment under direct observation of doctors or paramedics. In 77 cases, treatment is completed and patients are cured. Under preventive health care, health education material is distributed and Health and Cleanliness Shibirs are organized.

A special survey covering physically handicapped and mentally retarded persons has been organized and social welfare benefits given.

Other National Health Programmes (maternal child health, immunization, school health check up, family welfare etc.) are regularly conducted.

207. An Agricultural Cell has been set up in the SSPA which assists the Grievances Redressal Machinery in resolving the problem relating to the agricultural land. The salient features of this cell are as follows:

The Agriculture Cell is involved in purchasing land, supervision of land improvement works and processing land related grievances of the PAFs.

Agriculture training classes are organized for PAFs in the training institutes of the State Government.

Assistance is given for availing crop-loan credit from banks and extension education is imparted in matters of marketing, cropping pattern, use of improved seeds, insecticides and latest equipments.

Afforestation was carried out in 33 R&R sites during 1999-2000 by planting 3500 saplings which are protected by bamboo tree-guards. Plantation is done along the roadside, common plots, school premises etc. In the remaining sites plantation work is undertaken by NGOs.

208. At the instance of GRA an educational cell has been set up in the SSPA. The main function of which is to improve the quality of education imparted and to improve the school enrolment. The salient features of this cell are as under:

School enrolment which was 4110 in 1998-99, increased to 4670 in 1999-2000. Out of the 4670 students enrolled, 2126 were girls (46.3%).

The number of schools is 170 and the number of teachers in 384. In the last academic year, 66 schools were upgraded by increasing the number of classes.

SSPA is regularly sending the teachers for in-service training. So far 120 teachers have been imparted training.

Every year during the period of June to August, a special drive is taken to increase the school enrolment.

In the current year 150 adult education classes have been started in the R&R sites with the help of NGOs.

An advisory committee has been created to make recommendations on how to improve the education being imparted. Members include faculty of MS University, officers of Education Department, Principal of Teacher Training Centre.

209. It is further averred in this affidavit that at the instance of GRA a large number of measures have been taken to improve the organisational structure of SSPA so as to effectively meet the challenge of R&R and make the R&R staff accountable. The salient features of this are stated to be as follows:

A strategic policy decision has been taken to create three separate divisions in SSPA for Rehabilitation, Re-settlement and Planning. Each division is in charge of a senior level officer of the rank of Additional/Joint Commissioner.

Staff strength in SSPA has been considerably augmented especially at the field level.

To review the structural and functional aspects of SSPA services of a management consultancy agency (M/s. TCS) has been engaged and draft report has been received and is being examined.

A demographic survey is to be conducted to comprehensively document information regarding the PAPs with special reference to their family composition, marriage, births, deaths, life expectancy, literacy, customs, culture, social integration etc.

Staff is being trained to sensitize them especially with regard to rehabilitation and second-generation issues. Senior level officers have been sent for R&R training at Administrative Staff College of India, Hyderabad.

210. From the aforesaid affidavit it is more than clear that the GRA, of which Mr. Justice P.D. Desai, is the Chairman, has seen to the establishment of different cells and have taken innovative steps with a view to making R&R effective and meaningful. The steps which are being taken and the assistance given is much more than what is required under the Tribunal's Award. There now seems to be a commitment on the part of the Government of Gujarat to see that there is no laxity in the R&R of the PAPs. It appears that the State of Gujarat has realised that without effective R&R facilities no further construction of the dam would be permitted by the NCA and under the guidance and directions of the GRA meaningful steps are being undertaken in this behalf. In this connection we may take note of the fact that along with the said affidavit Sh. V.K. Babbar, again under the directions of the GRA, has given an undertaking to this Court, which reads as follows:-

1. As per this undertaking, inter alia, in respect of scattered pieces or parcels of lands in possession of the SSPA for R&R which do not add upto a contiguous block of 7 hectares by themselves or in conjunction with other lands steps will be taken to purchase or acquire contiguous lands so that the said small pieces of land become a part of continuous block of 6 hectares or more. This exercise will be undertaken and completed on or before 31st December, 2000. In case it is not possible to have a contiguous block of minimum of 6 hectares further directions will be sought from GRA or such piece or parcel of land will be put to use for other public purposes relating to R&R but which may not have been provided for in the NWDT award.
2. Henceforth, the land which is acquired or purchased for R&R purposes shall be contiguous to each other so as to constitute a compact block of 6 hectares.
3. Henceforth land to be purchased for R&R will be within a radius of 3 kms. from an existing or proposed new site and if there is a departure from this policy prior approval of the GRA will be obtained.
4. Demarcation of boundary of 5211 hectares of land whose survey has been undertaken by the GRA and carving out individual plots of 2 hectares for allotment to PAFs will be undertaken and completed on or before 31st December, 2000.

5. The other undertakings relate to soil testing and/or ensuring that suitable land is made available to the PAFs after the quality of land is cleared by the agriculture experts of the Gujarat Agriculture University. With regard to the lands in possession of the SSPA which are low lying and vulnerable to water logging during monsoon, an undertaking has been given that the land has been deleted from the inventory of lands available for R&R unless such lands are examined by the Agricultural Cell of SSPA and it is certified that the access to these lands is clear and unimpeded and that they are suitable for R&R. Compliance report in this regard is to be submitted to the GRA on or before 31st December, 2000.

211. In addition to the aforesaid undertaking of Sh. V.K. Babbar, undertakings of the Collectors of Khedr, Vadodara, Ahmedabad, Narmada, Panchmahal and Bharuch Districts have also been filed. Apart from reiterating what is contained in the undertaking of Sh. V.K. Babbar, in these undertakings of the Collectors, it is stated that necessary mutation entries regarding entering the name of SSPA/SSNNL in the village records of right in respect of the land in possession for R&R or PAFs likely to be resettled in Gujarat have been made but the certification of these entries will be completed and the matter reported to the GRA before 31 st August, 2000. If this is not done the land is to be deleted from the inventory of land available for R&R. Necessary mutation entries in the village records or rights regarding removal of encumbrances of original landholders shall also be completed by that date.

212. From what is noticed hereinabove, this Court is satisfied that more than adequate steps are being taken by the State of Gujarat not only to implement the Award of the Tribunal to the extent it grants relief to the oustees but the effort is to substantially improve thereon and, therefore, continued monitoring by this Court may not be necessary.

213. On behalf of the State of Madhya Pradesh, in response to this Court's order dated 9th May, 2000, an affidavit of Sh. H.N. Tiwari, Director (TW), Narmada Valley Development Authority has been filed. It is stated therein that with a view to arrange resettlement of the PAFs to be affected at different levels detailed instructions to the Field Officers of the submergence area were issued by Sh. Tiwari vide letter dated 20th May, 2000 in respect of all the aspects of resettlement of the PAFs. This is related to identification of land, processing of land acquisition cases and passing of the Award, taking of PAFs to Gujarat for selection of land, allotment of land to the PAFs who decide to remain in Madhya Pradesh and development of sites. There are 92 sites for re-settlement of the PAFs which are required to be established and out of these 18 are stated to be fully developed, development in 23 sites is in progress, 18 sites are such where location has been determined and land identified but development work has not started and 33 sites are such where location of land for the development is to be decided by the task force constituted for this purpose.

214. Dealing specifically with the states of PAFs to be affected at different levels this affidavit, inter alia, states that with regard to PAFs to be affected at EL 85 mtr. those of whom who have opted to go to Gujarat land has been offered to them by the Government

of Gujarat, those PAFs who have changed their mind and now want to remain in Madhya Pradesh land is being shown to them in Madhya Pradesh.

215. It has not been categorically stated whether the PAFs who are so affected have been properly resettled or not. On the contrary, it is stated that no Awards in land acquisition cases have been passed in respect of six villages and it is only after the Awards are passed that house plots will be allotted and compensation paid. The provision for financial assistance for purchase of productive assets will be released when the PAFs shift and start construction of the houses. The reason for not making the payment in advance rightly is that if the grants are paid to the oustees before they shift they may possibly squander the grant and the State Government may be required to pay again to establish them on some self employment venture. For the re-settlement of PAFs in Madhya Pradesh out of ten relocation sites mentioned in the affidavit only five have been fully developed. It is also stated that 163 PAFs are resisting from shifting to Gujarat under the influence of anti dam activists, though they have been given notices containing offer of the land and house plots by the Government of Gujarat. In addition thereto 323 PAFs who were earlier resisting have now been persuaded and arrangements for selection of land for them in Gujarat has been initiated.

216. With regard to the R&R status of PAFs to be affected at EL 95 mtr. it is, inter alia, stated that those losing 25 per cent of their holdings are entitled to be allotted cultivable land and notices were given to them to identify the land which can be allotted. In the said notice it was stated that the development process will be undertaken with regard to the said land only after it is selected by the PAFs. There is also a mention in the affidavit filed in the name of Narmada Bachao Andolan, the petitioner herein, not allowing the State Government to conduct survey for demarcation of the submergence area and identification of the PAFs to be affected at EL 132.86 mtrs. [436 ft.]. Six out of twenty five relocation sites required to be developed have been fully developed.

217. Affidavit on behalf of the State of Madhya Pradesh draws a picture of rehabilitation which is quite different from that of Gujarat. There seems to be no hurry in taking steps to effectively rehabilitate the Madhya Pradesh PAFs in their home State. It is indeed surprising that even awards in respect of six villages out of 33 villages likely to be affected at 90 mtr. dam height have not been passed. The impression which one gets after reading the affidavit on behalf of the State of Madhya Pradesh clearly is that the main effort of the said State is to try and convince the PAFs that they should go to Gujarat whose rehabilitation package and effort is far superior to that of the State of Madhya Pradesh. It is, therefore, not surprising that vast majority of the PAFs of Madhya Pradesh have opted to be re-settled in Gujarat but that does not by itself absolve the State of Madhya Pradesh of its responsibility to take prompt steps so as to comply at least with the provisions of the Tribunal's Award relating to relief and rehabilitation. The State of Madhya Pradesh has been contending that the height of the dam should be lowered to 436 ft. so that lesser number of people are dislocated but we find that even with regard to the rehabilitation of the oustees at 436 ft. the R&R programme of the State is nowhere implemented. The State is under an obligation to effectively resettle those oustees whose choice is not to go to Gujarat. Appropriate directions may, therefore, have to be given to

ensure that the speed in implementing the R&R picks up. Even the interim report of Mr. Justice Soni, The GRA for the State of Madhya Pradesh, indicates lack of commitment on the States part in looking to the welfare of its own people who are going to be under the threat of ouster and who have to be rehabilitated. Perhaps the lack of urgency could be because of lack of resources, but then the rehabilitation even in the Madhya Pradesh is to be at the expense of Gujarat. A more likely reason could be that, apart from electricity, the main benefit of the construction of the dam is to be of Gujarat and to a lesser extent to Maharashtra and Rajasthan. In a federal set up like India whenever any such Inter-State project is approved and work undertaken the States involved have a responsibility to co-operate with each other. There is a method of settling the differences which may arise amongst there like, for example, in the case of Inter-State water dispute the reference of the same to a Tribunal. The Award of the Tribunal being binding the States concerned are duty bound to comply with the terms thereof.

218. On behalf of the State of Maharashtra affidavit in response to this Court's order dated 9th May, 2000, the position regarding the availability of land for distribution to the PAFs was stated to be as follows:

i] Total land made available by the Forest Department 4191.86 Hectares  
ii] Land which could not be allotted at present to PAF [a] Gaothan land [used residential purposes} 209.60 hectares [b] land occupied by river/nallah/hills 795.62 hectares [c] Land under encroachment by third parties 34.13 hectares Therefore, the net land available At present for allotment was 4191.86 (-) 1439.35 2752.51 hectares Total area of land allotted Tol600PAFs 2434.01 hectares Remaining cultivable land Available with the State 2752-2434.01 318.50 hectares

It is further stated in this affidavit that out of 795.62 hectares of forest land which was reported to be uncultivable the State has undertaken a survey for ascertaining whether any of these lands can be made available for cultivation and distribution by resorting to measures like bunding, terracing and levelling. It is estimated that 30 to 40 hectares of land would become available. In addition thereto the affidavit states that the Government of Maharashtra has decided to purchase private land in nearby villages for re-settlement of PAFs and further that GRA has been established and Justice S.P. Kurdukar, a retired judge of this Court has been appointed as its Chairman. It is categorically stated in this affidavit that the State Government would be in a position to make these land available to all the concerned project affected families.

## CONCLUSION

219. Water is one element without which life cannot sustain. Therefore, it is to be regarded as one of the primary duties of the Government to ensure availability of water to the people.

220. There are only three sources of water. They are rainfall, ground water or from river. A river itself gets water either by the melting of the snow or from the rainfall while the ground water is again dependent on the rainfall or from the river. In most parts of India, rainfall takes place during a period of about 3 to 4 months known as the Monsoon

Season. Even at the time when the monsoon is regarded as normal, the amount of rainfall varies from region to region. For example, North-Eastern States of India receive much more rainfall than some of other States like Punjab, Haryana or Rajasthan. Dams are constructed not only to provide water whenever required but they also help in flood control by storing extra water. Excess of rainfall causes floods while deficiency thereof results in drought. Studies show that 75% of the monsoon water drains into the sea after flooding a large land area due to absence of the storage capacity. According to a study conducted by the Central Water Commission in 1998, surface water resources were estimated at 1869 cu km and rechargeable groundwater resources at 432 cu km. It is believed that only 690 cu km of surface water resources (out of 1869 cu km) can be utilised by storage. At present the storage capacity of all dams in India is 174 cu km, which is incidentally less than the capacity of Kariba Dam in Zambia/Zimbabwe (180.6 cu km) and only 12 cu km more than Aswan High Dam of Egypt.

221. While the reservoir of a dam stores water and is usually situated at a place where it can receive a lot of rainfall, the canals take water from this reservoir to distant places where water is a scarce commodity. It was, of course, contended on behalf of the petitioner that if the practice of water harvesting is resorted to and some check dams are constructed, there would really be no need for a high dam like Sardar Sarovar. The answer to this given by the respondent is that water harvesting serves a useful purpose but it cannot ensure adequate supply to meet all the requirements of the people. Water harvesting means to collect, preserve and use the rain water. The problem of the area in question is that there is deficient rainfall and small scale water harvesting projects may not be adequate. During the non rainy days, one of the essential ingredients of water harvesting is the storing of water. It will not be wrong to say that the biggest dams to the smallest percolating tanks meant to tap the rain water are nothing but water harvesting structures to function by receiving water from the common rainfall.

222. Dam serves a number of purposes. It stores water, generates electricity and releases water throughout the year and at times of scarcity. Its storage capacity is meant to control floods and the canal system which emanates therefrom is meant to convey and provide water for drinking, agriculture and industry. In addition thereto, it can also be a source of generating hydro-power. Dam has, therefore, necessarily to be regarded as an infrastructural project.

223. There are three stages with regard to the undertaking of an infrastructural project. One is conception or planning, second is decision to undertake the project and the third is the execution of the project. The conception and the decision to undertake a project is to be regarded as a policy decision. While there is always a need for such projects not being unduly delayed, it is at the same time expected that as thorough a study as is possible will be undertaken before a decision is taken to start a project. Once such a considered decision is taken, the proper execution of the same should be taken expeditiously. It is for the Government to decide how to do its job. When it has put a system in place for the execution of a project and such a system cannot be said to be arbitrary, then the only role which a Court may have to play is to see that the system works in the manner it was envisaged.

224. A project may be executed departmentally or by an outside agency. The choice has to be of the Government. When it undertakes the execution itself, with or without the help of another organisation, it will be expected to undertake the exercise according to some procedure or principles. The NCA was constituted to give effect to the Award, various sub-groups have been established under the NCA and to look after the grievances of the resettled oustees and each State has set up a Grievance Redressal Machinery. Over and above the NCA is the Review Committee. There is no reason now to assume that these authorities will not function properly. In our opinion the Court should have no role to play.

225. It is now well-settled that the courts, in the exercise of their jurisdiction, will not transgress into the field of policy decision. Whether to have an infrastructural project or not and what is the type of project to be undertaken and how it has to be executed, are part of policy making process and the Courts are ill equipped to adjudicate on a policy decision so undertaken. The Court, no doubt, has a duty to see that in the undertaking of a decision, no law is violated and people's fundamental rights are not transgressed upon except to the extent permissible under the Constitution. Even then any challenge to such a policy decision must be before the execution of the project is undertaken. Any delay in the execution of the project means over run in costs and the decision to undertake a project, if challenged after it's execution has commenced, should be thrown out at the very threshold on the ground of laches if the petitioner had the knowledge of such a decision and could have approached the Court at that time. Just because a petition is termed as a PIL does not mean that ordinary principles applicable to litigation will not apply. Laches is one of them.

226. Public Interest Litigation [PIL] was an innovation essentially to safeguard and protect the human rights of those people who were unable to protect themselves. With the passage of time the PIL jurisdiction has been ballooning so as to encompass within its ambit subjects such as probity in public life, granting of largess in the form of licences, protecting environment and the like. But the balloon should not be inflated so much that it bursts. Public Interest Litigation should not be allowed to degenerate to becoming Publicity Interest Litigation or Private Inquisitiveness Litigation.

227. While exercising jurisdiction in PIL cases Court has not forsaken its duty and role as a Court of law dispensing justice in accordance with law. It is only where there has been a failure on the part of any authority in acting according to law or in non-action or acting in violation of the law that the Court has stepped in. No directions are issued which are in conflict with any legal provisions. Directions have, in appropriate cases, been given where the law is silent and inaction would result in violation of the Fundamental Rights or other Legal provisions.

228. While protecting the rights of the people from being violated in any manner utmost care has to be taken that the Court does not transgress its jurisdiction. There is in our Constitutional frame-work a fairly clear demarcation of powers. The Court has come down heavily whenever the executive has sought to impinge upon the Court's jurisdiction.

229. At the same time, in exercise of its enormous power the Court should not be called upon or undertake governmental duties or functions. The Courts cannot run the Government nor the administration indulge in abuse or non-use of power and get away with it. The essence of judicial review is a constitutional fundamental. The role of the higher judiciary under the Constitution casts on it a great obligation as the sentinel to defend the values of the Constitution and rights of Indians. The courts must, therefore, act within their judicially permissible limitations to uphold the rule of law and harness their power in public interest. It is precisely for this reason that it has been consistently held by this Court that in matters of policy the Court will not interfere. When there is a valid law requiring the Government to act in a particular manner the Court ought not to, without striking down the law, give any direction which is not in accordance with law. In other words the Court itself is not above the law.

230. In respect of public projects and policies which are initiated by the Government the Courts should not become an approval authority. Normally such decisions are taken by the Government after due care and consideration. In a democracy welfare of the people at large, and not merely of a small section of the society, has to be the concern of a responsible Government. If a considered policy decision has been taken, which is not in conflict with any law or is not mala fide, it will not be in Public Interest to require the Court to go into and investigate those areas which are the function of the executive. For any project which is approved after due deliberation the Court should refrain from being asked to review the decision just because a petitioner in filing a PIL alleges that such a decision should not have been taken because an opposite view against the undertaking of the project, which view may have been considered by the Government, is possible. When two or more options or views are possible and after considering them the Government takes a policy decision it is then not the function of the Court to go into the matter afresh and, in a way, sit in appeal over such a policy decision.

231. What the petitioner wants the Court to do in this case is precisely that. The facts enumerated hereinabove clearly indicate that the Central Government had taken a decision to construct the Dam as that was the only solution available to it for providing water to water scarce areas. It was known at that time that people will be displaced and will have to be rehabilitated. There is no material to enable this Court to come to the conclusion that the decision was mala fide. A hard decision need not necessarily be a bad decision.

232. Furthermore environment concern has not only to be of the area which is going to be submerged and its surrounding area. The impact on environment should be seen in relation to the project as a whole. While an area of land will submerge but the construction of the Dam will result in multifold improvement in the environment of the areas where the canal waters will reach. Apart from bringing drinking water within easy reach the supply of water to Rajasthan will also help in checking the advancement of the Thar Desert. Human habitation will increase there which, in turn, will help in protecting the so far porous border with Pakistan.

233. While considering Gujarat's demand for water, the Government had reports that with the construction of a high dam on the river Narmada, water could not only be taken to the scarcity areas of Northern Gujarat, Saurashtra and parts of Kutch but some water could also be supplied to Rajasthan.

234. Conflicting rights had to be considered. If for one set of people namely those of Gujarat, there was only one solution, namely, construction of a dam, the same would have an adverse effect on another set of people whose houses and agricultural land would be submerged in water. It is because of this conflicting interest that considerable time was taken before the project was finally cleared in 1987. Perhaps the need for giving the green signal was that while for the people of Gujarat, there was no other solution but to provide them with water from Narmada, the hardships of oustees from Madhya Pradesh could be mitigated by providing them with alternative lands, sites and compensation. In governance of the State, such decisions have to be taken where there are conflicting interests. When a decision is taken by the Government after due consideration and full application of mind, the Court is not to sit in appeal over such decision.

235. Since long the people of India have been deriving the benefits of the river valley projects. At the time of independence, food-grain was being imported into India but with the passage of time and the construction of more dams, the position has been reversed. The large-scale river valley projects per se all over the country have made India more than self-sufficient in food. Famines which used to occur have now become a thing of the past. Considering the benefits which have been reaped by the people all over India with the construction of the dams, the Government cannot be faulted with deciding to construct the high dam on the river Narmada with a view to provide water not only to the scarcity areas of Gujarat but also to the small areas of the State of Rajasthan where the shortage of water has been there since the time immemorial.

236. In the case of projects of national importance where Union of India and/or more than one State(s) are involved and the project would benefit a large section of the society and there is evidence to show that the said project had been contemplated and considered over a period of time at the highest level of the States and the Union of India and more so when the project is evaluated and approval granted by the Planning Commission, then there should be no occasion for any Court carrying out any review of the same or directing its review by any outside or "independent" agency or body. In a democratic set up, it is for the elected Government to decide what project should be undertaken for the benefit of the people. Once such a decision had been taken that unless and until it can be proved or shown that there is a blatant illegality in the undertaking of the project or in its execution, the Court ought not to interfere with the execution of the project.

237. Displacement of people living on the proposed project sites and the areas to be submerged is an important issue. Most of the hydrology projects are located in remote and in-accessible areas, where local population is, like in the present case, either illiterate or having marginal means of employment and the per capita income of the families is low. It is a fact that people are displaced by projects from their ancestral homes. Displacement of these people would undoubtedly disconnect them from their past,

culture, custom and traditions, but then it becomes necessary to harvest a river for larger good. A natural river is not only meant for the people close by but it should be for the benefit of those who can make use of it, being away from it or near by. Realising the fact that displacement of these people would disconnect them from their past, culture, custom and traditions, the moment any village is earmarked for take over for dam or any other developmental activity, the project implementing authorities have to implement R&R programmes. The R&R plans are required to be specially drafted and implemented to mitigate problems whatsoever relating to all, whether rich or poor, land owner or encroacher, farmer or tenant, employee or employer, tribal or non-tribal. A properly drafted R&R plan would improve living standards of displaced persons after displacement. For example residents of villages around Bhakra Nangal Dam, Nagarjun Sagar Dam, Tehri, Bhillai Steel Plant, Bokaro and Bala Iron and Steel Plant and numerous other developmental sites are better off than people living in villages in whose vicinity no development project came in. It is not fair that tribals and the people in undeveloped villages should continue in the same condition without ever enjoying the fruits of science and technology for better health and have a higher quality of life style. Should they not be encouraged to seek greener pastures elsewhere, if they can have access to it, either through their own efforts due to information exchange or due to outside compulsions. It is with this object in view that the R&R plans which are developed are meant to ensure that those who move must be better off in the new locations at Government cost. In the present case, the R&R packages of the States, specially of Gujarat, are such that the living conditions of the oustees will be much better than what they had in their tribal hamlets.

238. Loss of forest because of any activity is undoubtedly harmful. Without going into the question as to whether the loss of forest due to river valley project because of submergence is negligible, compared to deforestation due to other reasons like cutting of trees for fuel, it is true that large dams cause submergence leading to loss of forest areas. But it cannot be ignored and it is important to note that these large dams also cause conversion of waste land into agricultural land and making the area greener. Large dams can also become instruments in improving the environment, as has been the case in the Western Rajasthan, which transformed into a green area because of Indira Gandhi Canal, which draws water from Bhakhra Nangal Dam. This project not only allows the farmers to grow crops in deserts but also checks the spread of Thar desert in adjoining areas of Punjab and Haryana.

239. Environmental and ecological consideration must, of course, be given due consideration but with proper channellisation of developmental activities ecology and environment can be enhanced. For example, Periyar Dam Reservoir has become an elephant sanctuary with thick green forests all round while at the same time wiped out famines that used to haunt the district of Madurai in Tamil Nadu before its construction. Similarly Krishnarajasagar Dam which has turned the Mandya district which was once covered with shrub forests with wild beasts into a prosperous one with green paddy and sugarcane fields all round.

240. So far a number of such river valley projects have been undertaken in all parts of India. The petitioner has not been able to point out a single instance where the construction of a Dam has, on the whole, had an adverse environmental impact. On the contrary the environment has improved. That being so there is no reason to suspect, with all the experience gained so far, that the position here will be any different and there will not be overall improvement and prosperity. It should not be forgotten that poverty is regarded as one of the causes of degradation of environment. With improved irrigation system the people will prosper. The construction of Bhakra Dam is a shining example for all to see how the backward area of erstwhile undivided Punjab has now become the granary of India with improved environment than what was there before the completion of the Bhakra Nangal project.

241. The Award of the Tribunal is binding on the States concerned. The said Award also envisages the relief and rehabilitation measures which are to be undertaken. If for any reason, any of the State Governments involved lag behind in providing adequate relief and rehabilitation then the proper course, for a Court to take, would be to direct the Award's implementation and not to stop the execution of the project. This Court, as a Federal Court of the country specially in a case of inter-State river dispute where an Award had been made, has to ensure that the binding Award is implemented. In this regard, the Court would have the jurisdiction to issue necessary directions to the State which, though bound, chooses not to carry out its obligations under the Award. Just as an ordinary litigant is bound by the decree, similarly a State is bound by the Award. Just as the execution of a decree can be ordered, similarly, the implementation of the Award can be directed. If there is a short fall in carrying out the R&R measures, a time bound direction can and should be given in order to ensure the implementation of the Award. Putting the project on hold is no solution. It only encourages recalcitrant State to flout and not implement the award with impunity. This certainly cannot be permitted. Nor is it desirable in the national interest that where fundamental right to life of the people who continue to suffer due to shortage of water to such an extent that even the drinking water becomes scarce, non-cooperation of a State results in the stagnation of the project.

242. The clamour for the early completion of the project and for the water to flow in the canal is not by Gujarat but is also raised by Rajasthan.

243. As per Clause 3 of the final decision of the Tribunal published in the Gazette notification of India dated 12th December, 1979, the State of Rajasthan has been allocated 0.5 MAF of Narmada water in national interest from Sardar Sarovar Dam. This was allocated to the State of Rajasthan to utilise the same for irrigation and drinking purposes in the arid and drought-prone areas of Jalore and Barmer districts of Rajasthan situated on the international border with Pakistan, which have no other available source of water.

244. Water is the basic need for the survival of human beings and is part of right of life and human rights as enshrined in Article 21 of the Constitution of India and can be served only by providing source of water where there is none. The Resolution of the U.N.O. in

1977 to which India is a signatory, during the United Nations Water Conference resolved unanimously *inter alia* as under:

All people, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantum and of a quality equal to their basic needs.

245. Water is being made available by the State of Rajasthan through tankers to the civilians of these areas once in four days during summer season in quantity, which is just sufficient for their survival. The districts of Barmer and Jalore are part of 'Thar Desert' and on account of scarcity of water the desert area is increasing every year. It is a matter of great concern that even after half a century of freedom, water is not available to all citizens even for their basic drinking necessity violating the human right resolution of U.N.O. and Article 21 of the Constitution of India. Water in the rivers of India has great potentiality to change the miserable condition of the arid, drought-prone and border areas of India.

246. The availability of drinking water will benefit about 1.91 lac of people residing in 124 villages in arid and drought-prone border areas of Jalore and Banner districts of Rajasthan who have no other source of water and are suffering grave hardship.

247. As already seen, the State of Madhya Pradesh is keen for the reduction of the dam's height to 436 ft. Apart from Gujarat and Rajasthan the State of Maharashtra also is not agreeable to this. The only benefit from the project which Rajasthan get is its share of hydel power from the project. The lowering of the height from 455 ft. to 436 ft. will take away this benefit even though 9399 hectares of its land will be submerged. With the reduction of height to 436 ft. not only will there be loss of power generation but it would also render the generation of power seasonal and not throughout the year.

248. One of the indicators of the living standard of people is the per capita consumption of electricity. There is, however, perennial shortage of power in India and, therefore, it is necessary that the generation increases. The world over, countries having rich water and river systems have effectively exploited these for hydel power generation. In India, the share of hydel power in the total power generated was as high as 50% in the year 1962-63 but the share of hydel power started declining rapidly after 1980. There is more reliance now on thermal power projects. But these thermal power projects use fossil fuels, which are not only depleting fast but also contribute towards environmental pollution. Global warming due to the greenhouse effect has become a major cause of concern. One of the various factors responsible for this is the burning of fossil fuel in thermal power plants. There is, therefore, international concern for reduction of greenhouse gases which is shared by the World Bank resulting in the restriction of sanction of funds for thermal power projects. On the other hand, the hydel power's contribution in the greenhouse effect is negligible and it can be termed ecology friendly. Not only this but the cost of generation of electricity in hydel projects is significantly less. The Award of the Tribunal has taken all these factors into consideration while determining the height of the dam at 455 ft. Giving the option of generating eco-friendly electricity and substituting it by

thermal power may not, therefore, be the best option. Perhaps the setting up of a thermal plant may not displace as many families as a hydel project may but at the same time the pollution caused by the thermal plant and the adverse affect on the neighbourhood could be far greater than the inconvenience caused in shifting and rehabilitating the oustees of a reservoir.

249. There is and has been in the recent past protests and agitations not only against hydel projects but also against the setting up of nuclear or thermal power plants. In each case reasons are put forth against the execution of the proposed project either as being dangerous (in case of nuclear) or causing pollution and ecological degradation (in the case of thermal) or rendering people homeless and posses adverse environment impacts as has been argued in the present case. But then electricity has to be generated and one or more of these options exercised. What option to exercise, in our Constitutional framework, is for the Government to decide keeping various factors in mind. In the present case, a considered decision has been taken and an Award made whereby a high dam having an FRL of 455 ft. with capability of developing hydel power to be constructed. In the facts and circumstances enumerated hereinabove, even if this Court could go into the question, the decision so taken cannot be faulted.

#### DIRECTIONS

250. While issuing directions and disposing of this case, two conditions have to be kept in mind, (i) the completion of project at the earliest and (ii) ensuring compliance with conditions on which clearance of the project was given including completion of relief and rehabilitation work and taking of ameliorative and compensatory measures for environmental protection in compliance with the scheme framed by the Government thereby protecting the rights under Article 21 of the Constitution. Keeping these principles in view, we issue the following directions.

- 1) Construction of the dam will continue as per the Award of the Tribunal.
- 2) As the Relief and Rehabilitation Subgroup has cleared the construction up to 90 meters, the same can be undertaken immediately. Further raising of the height will be only pari passu with the implementation of the relief and rehabilitation and on the clearance by the Relief and Rehabilitation Sub-group. The Relief and Rehabilitation Sub-Group will give clearance of further construction after consulting the three Grievances Redressal Authorities.
- 3) The Environment Sub-group under the Secretary, Ministry of Environment & Forests, Government of India will consider and give, at each stage of the construction of the dam, environment clearance before further construction beyond 90 meters can be undertaken.
- 4) The permission to raise the dam height beyond 90 meters will be given by the Narmada Control Authority, from time to time, after it obtains the above-mentioned clearances from the Relief and Rehabilitation Sub-group and the Environment Sub-group.

5) The reports of the Grievances Redressal Authorities, and of Madhya Pradesh in particular, shows that there is a considerable slackness in the work of identification of land, acquisition of suitable land and the consequent steps necessary to be taken to rehabilitate the project oustees. We direct the States of Madhya Pradesh, Maharashtra and Gujarat to implement the Award and give relief and rehabilitation to the oustees in terms of the packages offered by them and these States shall comply with any direction in this regard which is given either by the NCA or the Review Committee or the Grievances Redressal Authorities.

6) Even though there has been substantial compliance with the conditions imposed under the environment clearance the NCA and the Environment Sub-group will continue to monitor and ensure that all steps are taken not only to protect but to restore and improve the environment.

7) The NCA will within four weeks from today draw up an Action Plan in relation to further construction and the relief and rehabilitation work to be undertaken. Such an Action Plan will fix a time frame so as to ensure relief and rehabilitation pari passu with the increase in the height of the dam. Each State shall abide by the terms of the action plan so prepared by the NCA and in the event of any dispute or difficulty arising, representation may be made to the Review Committee. However, each State shall be bound to comply with the directions of the NCA with regard to the acquisition of land for the purpose of relief and rehabilitation to the extent and within the period specified by the NCA.

8) The Review Committee shall meet whenever required to do so in the event of there being any un-resolved dispute on an issue which is before the NCA. In any event the Review Committee shall meet at least once in three months so as to oversee the progress of construction of the dam and implementation of the R&R programmes.

If for any reason serious differences in implementation of the Award arise and the same cannot be resolved in the Review Committee, the Committee may refer the same to the Prime Minister whose decision, in respect thereof, shall be final and binding on all concerned.

9) The Grievances Redressal Authorities will be at liberty, in case the need arises, to issue appropriate directions to the respective States for due implementation of the R&R programmes and in case of non-implementation of its directions, the GRAs will be at liberty to approach the Review Committee for appropriate orders.

10) Every endeavour shall be made to see that the project is completed as expeditiously as possible.

251. This and connected petitions are disposed off in the aforesaid terms.

A.S.  
B.N. Kirpal, J.

Anand,

CJI.

**Bharucha, J.**

252. I have read the judgment proposed to be delivered by my learned brother, the Hon'ble Mr. Justice B.N. Kirpal. Respectfully, I regret my inability to agree therewith.

253. I do not set out the facts here: they are detailed in Brother Kirpal' s judgment.

254. I take the view that the Sardar Sarovar Project does not require to be re-examined, having regard to its cost effectiveness or otherwise, and that the seismicity aspect of the Project has been sufficiently examined and no further consideration thereof is called for. I do not accept the submission on behalf of the petitioner that those ousted by reason of the canals emanating from the reservoir in the Project must have the same relief and rehabilitation benefits as those ousted on account of the reservoir itself; this is for the reason that the two fall in different classes.

255. Having said this, I turn to the aspect of the environmental clearance of the Project. The Planning Commission accorded provisional sanction to the Project subject to the environment clearance thereof being obtained. At the relevant time, the responsibility for giving environmental clearance lay with the Department of Environment in the Ministry of Environment and Forests of the Union Government. The Department had in January, 1985 issued Guidelines for Environmental Impact Assessment of River Valley Projects. The Preface thereof stated that environmental appraisal was an important responsibility assigned to the Department. It involved the evaluation of the environmental implications of, and the incorporation of necessary safeguards in, activities having a bearing on environmental quality. While river valley projects were a basic necessity to a country whose economy was largely based on agriculture, over the years the realisation had dawned that river valley projects had their due quota of positive and adverse impacts which had to be carefully assessed and balanced for achieving sustained benefits. Therefore, it had been decided in the late 70s that all river valley projects should be subjected to a rigorous assessment of their environmental impact so that necessary mitigative measures could be duly incorporated therein at the inception stage. The Guidelines set out the procedure to be adopted for carrying out environmental impact assessments. In the Chapter headed Relevance of Environmental Aspects for River Valley Development Projects, the Guidelines stated, "Concern for environmental pollution is rather a recent phenomenon which has been triggered mainly by the backlash effect of accelerated industrial growth in the developed countries. The two major criteria - the project should maximise economic returns and it should be technically feasible - are no longer considered adequate to decide the desirability or even the viability of the project. It is now widely recognised that the development effort may frequently produce not only sought for benefits, but other often unanticipated - undesirable consequences as well which may nullify the socio-economic benefits for which the project is designed." After reference to the strong feelings that were often expressed in favour of measures that would provide the provision of adequate food and shelter to the million, the Guidelines stated, "Such strong feelings are easy to understand in the context of the prevailing economic stagnation. It does not, however, follow that the arguments advanced are valid. The basic flaw in these arguments is that they presume incompatibility between

environmental conservation and the development effort." Apart from some selected cases where the uniqueness of the natural resources, like wildlife, flora and genetic pool, which demanded exclusive earmarking of a given region for their specific use, the majority of cases did not call for a choice between development projects and preservation of the natural environment; but in all cases there was great need to consider the environmental aspects along with other feasibility considerations. It was imperative to analyse whether the adoption of environmental measures was going to result in any short or long term social or economic benefits. A careful study of the direct costs involved, which would be caused by the absence of environmental mitigative measures on river valley projects, was an eye opener. These included effects on health, plant genetic resources, aquatic resources, water-logging and salinity of irrigated soils, deforestation and soil conservation. During the planning and feasibility assessment stages, several factors had to be taken into account, including short and long term impact on population and human settlements in the inundated and watershed areas, impact on flora and fauna (wildlife) in the vicinity, impact on wildlife, including birds, impact on national parks and sanctuaries, on sites and monuments of historical, cultural and religious significance and on forests, agriculture, fisheries and recreation and tourism. Requisite data for impact assessment was not readily available, this being relatively a new discipline, and it had to be generated through such field surveys as:

Pre-impoundment census of flora & fauna, particularly the rare & endangered species, in submergence areas;

Census of animal population and available grazing areas;

Land-use pattern in the area with details of extent & type of forest;

Pre-impoundment survey of fish habitat and nutrients levels;

Ground water level, its quality, and existing water use pattern;

Mineral resources, including injurious minerals, in the impoundment;

Living conditions of affected tribals/aboriginals etc.

The cost of proposed remedial and mitigative measures to protect the environment had to be included in the project cost. Mitigative measures included, among other things, compensatory afforestation. Only when the incorporation of environmental aspects in the project planning was made a part and parcel of all river valley projects would there be hope to protect and preserve "our natural environment and fulfil the objective of rapid economic development on the sustained basis while safeguarding the natural resources including the air, water, land, flora and fauna for the benefit of present and future generations." The necessary data that was required to be collected for impact assessment was set out in the Guidelines. A chart of the impact assessment procedure was also contained in the Guidelines.

256. It appears, that, though it ought rightly to have been taken by the Ministry of Environment and Forests, the decision whether or not to accord environmental clearance to the Project was left to the Prime Minister.

257. A Note was prepared by the Ministry of Water Resources in or about October, 1986 on the environmental aspects of the Sardar Sarovar and the Narmada Sagar Multi Purpose Projects. It stated that a decision on the clearance of these projects from the environmental angle and under the Forest Conservation Act, 1980 had become a matter of urgency. Delays had occurred which had necessitated a recasting of the schedule. The Ministry of Environment and Forests had been doing its best to expedite the process of examination and clearance "but have been finding the material submitted inadequate and unsatisfactory ....". While the State Governments had done their best to meet the requirements, "some of the information and action will necessarily take time and will have to proceed pari passu with the implementation of the project, which in any case will take a decade or more to complete." The Note stated that the Ministry of Water Resources shared the concerns and anxieties of the Ministry of Environment and Forests, as also the sense of urgency of the Governments of Gujarat and Madhya Pradesh, who felt that it was urgently necessary to take a decision in regard to the clearance. Under the sub-heading, "Should the projects be taken up at all?", the Note stated that the abandonment of the projects would mean the abandonment of the generation of 2450 MW of power and of the possibilities of economic development which that quantum of power would bring, as also increased agricultural production resulting from the creation of an irrigation potential of 2.041 million hectares. No effective alternatives to the two projects were available. Reference to the adverse environmental impact of the projects carried the implicit assumption that if the projects were not sanctioned the status-quo would remain and there would be no deterioration of the environment. Such an assumption was not warranted. Despite the submergence of land and displacement of people and livestock, there was no case for the abandonment of the projects. What needed to be done was to take appropriate and adequate counter measures to off-set the environmental impact of the projects. The Note then gave a broad picture of the likely environmental impact of the two projects. In respect of the flora and fauna, it said, "Quantified data not yet available". In respect of the possibility of soil erosion from the catchment leading to excessive siltation of the reservoirs, it said, "Extent of critically degraded area needing treatment to be identified". Specifically in respect of the Sardar Sarovar Project, the Note said that for the area to be submerged in Maharashtra, the Maharashtra Government had proposed compensatory afforestation over an area of 6490 hectares and the Madhya Pradesh was preparing an action plan to reforest about 5500 hectares of the denuded forest in the impact area. In respect of fauna, the Note said that the Narmada Sagar Project authorities had commissioned a wildlife census of the areas by the Zoological Survey of India and were negotiating terms with the Indian Institute of Wildlife Management, Dehradun, for carrying out detailed wildlife studies for re-location purposes. They proposed to undertake all necessary steps to minimise the adverse impact of the Project on wildlife. Gujarat and Maharashtra were also taking similar action with the help of specialised agencies. In respect of the Projects' flora, the Note said that the first preliminary survey in the area by the Botanical Survey of India was started in December, 1985 and it was estimated that the survey would take two to three years to be

completed. In respect of catchment area treatment, the Note said that field surveys were likely to be started shortly. The Project authorities had identified three representative pilot project areas. The biological and engineering measures to be adopted in the treatment of the balance of the catchment area would be designed on the basis of the experience to be gained from these pilot projects. Under the sub-heading, "What still remains to be done", the Note stated, "*While some plans have been made, studies undertaken and action initiated, it will be clear from the preceding paragraphs that much still remains to be done. Indeed, it is the view of the Ministry of Environment, Forests and Wildlife that what has been done so far whether by way of action or by way of studies does not amount to much, and that many matters are as yet in the early and preliminary stages.*" What was then set out was an enumeration of what remained to be done. *The survey of flora, to assess if there were any rare or threatened plant species, had been assigned to the Botanical Survey of India, which was expected to be completed in a period of two years. The wildlife survey undertaken by the Zoological Survey of India was also likely to take two years. The Indian Institute of Wildlife Management, Dehradun was to consider and assess the impact on wildlife of the destruction of their habitat, and to prepare a project report for their relocation. After all these reports became available, a master plan had to be prepared. Field surveys for the identification of the critically eroding areas was necessary and would take three years. The results from pilot studies would be available only after three years.* Then, under the sub-heading, "Options in regard to the Clearance of the Projects", the Note stated:

*There are two options:*

*(i) As a number of studies, censuses, field surveys, mapping of areas, etc. are likely to take between 2 and 3 years, one possibility is that all these should be completed; detailed operational plans for catchment treatment compensatory afforestation, rehabilitation and resettlement of affected population, and remedial or re-location measures for planned species, wildlife, etc., formulated; the responsibility for their implementation clearly identified; and then the projects should be given a clearance from the environmental and forest angles. This will mean a postponement of the clearance of projects by about 3 years.*

(ii) The other option is that the projects should be given the necessary clearance now, with clear conditions and stipulations in regard to the actions to be taken on the various environmental aspects and appropriate monitoring arrangements to ensure that the actions are taken in a time-bound manner.

13.2 The arguments against a postponement of clearance by three years are very strong.

The postponement of the decision at this stage seemed, to the writers of Note, "scarcely conceivable". A postponement would lead to substantial increases in project costs and the benefits expected from the projects would be delayed. Also the work that had already been done would be rendered infructuous. The deferment of clearance by three years would put the organisational set-up that had been built up into a state of uncertainty, retard the momentum that had been gathered, and sap the organisational morale and

motivation. The Note added, "Finally, the numerous studies, surveys, data collection exercises, plans for remedial measures, etc., which have been enumerated earlier would involve time, money and organisational commitment. With the project decision postponed for three years, and with no assurance that at the end of that period, the decision will be positive, it is difficult to believe that all these studies, surveys and plans relating to the environmental aspects will be pursued with energy and enthusiasm, and the necessary resources devoted to them. In other words, the postponement of the decision in the interest of collecting the information relating to the environmental aspects and completing the formulation of the necessary operational plans may in fact prove to be a self defeating exercise. On the other hand, if the project decisions are taken now, subject to firm conditions and stipulations regarding the environmental aspects, there is greater likelihood of these conditions being met....A possible argument against the immediate clearance of the projects could be that once the projects are cleared, the management would concentrate on the engineering and construction aspects and would not pay adequate attention to the environmental and human aspects. There seems to be no need for such apprehensions. It should be entirely possible to give a conditional clearance and ensure that the conditions are properly met through a process of clear assignment of responsibility and frequent monitoring....Moreover, even assuming that the postponement of a decision by three years will improve the availability of detailed information and the state of preparedness on environmental matters, there can be no greater assurance at that stage than there is now regarding the whole-hearted and effective implementation of the remedial and ameliorative measures. We would still have to depend on proper monitoring....". In conclusion, the Note urged that clearance from the environmental angle and under the Forest Conservation Act, 1980 be given immediately, subject to conditions and stipulations relating to the various environmental and related aspects outlined in the Note.

(Emphasis supplied)

258. Another Note was prepared by the Ministry of Water Resources and forwarded to the Additional Secretary to the Prime Minister on 20th November, 1986. Insofar as catchment area treatment was concerned, it concluded that it was certain that the catchment area treatment programme could not be realistically formulated and assessed for at least another three years. Therefore, it was premature to comment on the efficacy or otherwise of the catchment area treatment programme which was still to be formulated. The action programme for Command area development was yet to be made available. The lining of the canal network and the digging of tubewells in the Command could not be considered to be adequate. A lot of field work and planning was needed to be done to arrive at a workable and effective Command area development programme. As to compensatory afforestation, the land for the same was yet to be identified and procured before it could be evaluated for the purpose. In regard to the loss of flora and fauna, the following studies were considered absolutely essential to determine the adequacy or otherwise of the left over habitat to sustain wildlife:

A wildlife census of the area" (ZSI will take atleast 2-3 years to complete the survey):

(i) Preparation of a Master Plan showing all protected areas, National Parks, Wildlife Reserves, Reserve and Protected Forests, etc. on which should be superimposed the area to be taken up for various reservoirs, roads, canals, settlement colonies, etc.

(ii) Study of the carrying capacity of the surrounding areas where the wildlife from the submergence area will disperse.

In the circumstances, it was not considered possible to assess the impact of the loss of habitat on the wildlife and the overall loss of biological diversity. The absence and inadequacy of data on the following environmental aspects persisted:

(i) Rehabilitation;

(ii) Catchment Area Treatment;

(iii) Command Area Development;

(iv) Compensatory Afforestation; and

(v) Flora and Fauna.

Considering the magnitude of rehabilitation, involving a large percentage of tribals, loss of extensive forest area rich in biological *diversity*, *enormous environmental cost of the project and considering the fact that the basic data on vital aspects was still not available* "there could be but one conclusion, that the project(s) are not ready for approval." "There were two options in regard to the clearance. As a number of studies, censuses, field surveys, mapping of areas etc. was likely to take between two and three years, one possibility was that all these should be completed; detailed operational plans for catchment treatment, compensatory-afforestation, rehabilitation and re-settlement of affected population and remedial or relocation measures for plant species, wildlife, etc. formulated; the responsibility for their implementation clearly identified; and then the projects should be given a clearance from the environmental and forest angles. This would mean a postponement of the clearance of projects by about three years." The other option was that the project should be given the necessary clearance with conditions and stipulations in regard to the actions to be taken on the various environmental aspects with appropriate monetary arrangements. The Note recommended the latter option.

(Emphasis supplied)

259. On 19th December, 1986 the Ministry of Environment and Forests sent to the Secretary to the Prime Minister a Note on the environment aspects of the Narmada Sagar and the Sardar Sarovar Projects. The Note stated that it covered the major environmental issues which included the rehabilitation of the affected population, catchment area treatment, Command area development, compensatory afforestation and the loss of flora and fauna. It explained the then status of each of these aspects in terms of availability of data and plans and the readiness to execute them. It said that other components of the

environmental aspect like the higher incidence of water borne diseases and loss of mineral reserves were important but were not dealt with in detail in the note. It stated that in respect of catchment area treatment, the requirement was of demarcation of critically degraded areas on the basis of aerial photographs, satellite imagery and ground checks; creation of a chain of nurseries of suitable species for biological treatment of the catchment area; and preparation of phased action programme for biological and engineering treatment of the degraded catchment area. Considering that catchment area treatment on an intensive scale was imperative, both to reduce silt load and to maintain ecological balance, and keeping in view the fact that the interpretation of the aerial photographs and satellite imagery would take at least one year for completion, to be followed by ground truth checks; the detailed land and soil surveys would take three years to be completed; the geo-morphological studies to suggest the engineering and biological treatment for the eroded areas were still to be taken up and the chain of nurseries needed to provide the necessary saplings in adequate quantity along with "manpower and other infrastructure requirements were still to be mobilised, it was *"reasonable to conclude that the catchment area treatment programme can be realistically formulated only after three years when these data become available"*. Command area development was to achieve the prevention of water-logging and salinity, the optimisation of water utilisation and the maintenance of water quality. A detailed survey of the Command area was required on priority to prepare a package of the nature and quantity of development and drainage and on farm works to fully utilise the irrigation potential. An action programme was yet to be detailed. The Ministry of Water Resources was preparing an Evaluation Report covering the extent of likely water-logging and salinity problems and the effectiveness of measures proposed or likely to be proposed to combat these problems "as per the action programme to be formulated". In so far as compensatory afforestation was concerned, the Project authorities had not been able to identify non-forest land for compensatory afforestation and had proposed to undertake afforestation on double the extent for degraded forest land, which proposal was fairly detailed and seemed satisfactory. In the matter of the loss of flora and fauna the Note stated "that the forest area, specially affected by the Narmada Sagar Project, represents areas harbouring rich heritage of genetic resources as well as wildlife. The preliminary study carried out by the Environmental Planning and Coordination Organisation, Bhopal as well as the observations made by the World Bank clearly underlined the need for preparing a master plan showing not just the present status but also the likely scenarios after the project was implemented. The prime concern was to ascertain the loss of biological diversity and whether the wildlife would be able to sustain itself after the destruction of its habitat. The following studies were considered absolutely essential both to determine the loss of flora and the adequacy or otherwise of the left over habitat to sustain the wildlife:

A wildlife census of the area (ZSI will take at least 2-3 years to complete the survey);

Preparation of a Master Plan showing all protected areas i.e. National Parks, Wildlife Reserves, Reserve and Protected Forests, etc. on which should be superimposed the areas cannot be taken up for various reservoirs, roads, canals, settlement colonies, etc.;

Study of the carrying capacity of the surrounding areas where the wildlife from the submergence area will disperse.

These studies are considered specially important in the case of NSP. The work initiated by BSI and ZSI at the request of the Project Authorities will be completed only by 1989. The other studies have not yet been initiated. *Under the circumstances, it is not possible to assess the impact of the loss of habitat on the wildlife and the overall loss of biological diversity and genetic reserves.*

Even if one were to assume that the forests to be destroyed do not contain genetic resources, which in any case cannot be valued, *the simple loss of these forests would have an environmental cost estimated at several thousand crores of Rupees as per norms developed by FRL. The environmental cost is thus colossal.*

The Note concluded:

1) Taking note of the fact that the project formulation has been in progress for more than three decades and the active interaction of the Project authorities with the Department of Environment has been going on for almost three years, *the absence and inadequacy of data on some important environmental aspects still persists.*

2) In an objective sense the NSP is not ready for clearance from environmental angle. *Even though SSP is in a fairly advanced stage of preparedness, it is neither desirable nor recommended that the SSP should be given approval in isolation on technical and other grounds.*

3) The state of readiness in the case of NSP is such that it gives just an outline of the Intention Plan. The fact that this Intention Plan will be converted to an Action Plan and there be effectively implemented has to be taken on trust. In case of Sardar Sarovar Project (SSP), readiness to execute is reasonably good except on the issue of rehabilitation of oustees specially from M.P. and Maharashtra.

4) Holding up of the projects even for the next few months is not likely to improve the level of preparedness on most of the environmental aspects, specially in the case of NSP. In the meanwhile, further studies will not perhaps pick up speed and thus at no time will the requisite information be fully available.

5) A large amount of money has already been invested on SSP which is critically linked - on technical and operational aspects - to NSP. However, *it may not be too late even now to modify some of the parameters of NSP and SSP to minimise environmental damage while at the same time ensuring optimal utilisation of water resources.*

*The choice is difficult but a choice has to be made.*

(Emphasis supplied)

260. A Note was prepared on 15th January, 1987 in the Prime Minister's Office. It noted that the main issues on environmental concerns were the rehabilitation of the affected population, compensatory afforestation, treatment of the catchment area and Command area development, pertaining, particularly, to drainage, water logging and salinity. The Department of Environment and Forests had raised the point that the rehabilitation plan was not ready, land had not been surveyed, areas of land use capability and water availability had not been identified and the land being suggested for rehabilitation, prima facie, appeared to be infertile. Detailed meetings with the State Governments revealed that they were seriously undertaking surveys, land identification and preparation of a rehabilitation plan, of which the first phase was more or less ready. The catchment area treatment preparation would take time. A compensatory afforestation programme could be chalked out without difficulty. The issue was whether detailed plans should be made fully ready before giving environmental clearance or whether there could be a conditional clearance so that the Project could start. The Secretary to the Prime Minister had discussed the matter with the Secretary, Water Resources and the Secretary, Environment and Forests and it had been agreed that clearance might be given on the following conditions:

Preparation in due time of detailed and satisfactory plans for rehabilitation, catchment area treatment, compensatory afforestation and Command Area Development.

Setting up of Narmada Management Authority with adequate powers and teeth to ensure that environmental management plans are implemented pari passu with engineering and other works.

Below the aforesaid Note, the Secretary to the Prime Minister sought his approval to conditional clearance of the Project from the environmental angle. The Project, she said, had been pending clearance for seven years and the Chief Ministers of Gujarat and Madhya Pradesh were keenly awaiting it. The Chief Minister of Gujarat had requested a "green signal" before 20th January, 1987.

261. On 19th January, 1987 the Prime Minister made a handwritten endorsement on the aforesaid Note, "Perhaps this is a good time to try for a River Valley Authority, Discuss". But it appears that a River Valley Authority was not found feasible and the sanction to the Project from the environmental angle was issued by the Ministry of Environment and Forests on 24th June, 1987.

262. The environmental sanction to the Project reads thus:

Office Memorandum

Subject: Approval of Narmada Sagar Project, Madhya Pradesh and Sarovar Project, Gujarat from environmental angle.

1. The Narmada Sagar Project, Madhya Pradesh and Sardar Sarovar Project, Gujarat have been referred to this Department for environmental clearance.

2. On the basis of examination of details of these projects by the Environmental Appraisal Committee for River Valley Projects and discussions with the Central and State authorities, the following details were sought from the project authorities:

- i. Rehabilitation Master Plan.
- ii. Phased Catchment Area Treatment Scheme.
- iii. Compensatory Afforestation Plan.
- iv. Command Area Development.
- v. Survey of Flora and Fauna.
- vi. Carrying Capacity of surrounding area.
- vii. Seismicity; and
- viii. Health Aspects.

3. Field Surveys are yet to be completed. The first set of information has been made available and complete details have been assured to be furnished by 1989.

4. The NCA has been expanded and its terms of reference have been amplified to ensure that environmental safeguard measures are planned and implemented in depth and in its pace of implementation pari passu with the progress of work on the project.

5. After taking into account all relevant facts of Narmada Sagar Project, Madhya Pradesh and the Sardar Sarovar Project, Gujarat are hereby accorded environmental clearance subject to the following conditions:

- i. The Narmada Control Authority (NCA) will ensure that environmental safeguard measures are planned and implemented pari passu with progress of work on projects.
- ii. The detailed surveys/studies assured will be carried out as per the schedule proposed and details made available to the Department for assessment.
- ii. The Catchment Area Treatment programme and the Rehabilitation plans be so drawn as to be completed ahead of reservoir filling.
- iii. The Department should be kept informed of progress on various works periodically.

6. Approval under Forest (Conservation) Act, 1980 for diversion of forest land will be obtained separately. No work should be initiated on forest area prior to this approval.

7. Approval from environmental and forestry angles for any other irrigation, power or development projects in the Narmada Basin should be obtained separately.

263. Even in 1987, when the environmental clearance to the Project was given, it had been found necessary by the Union of India to rigorously assess the environmental impact of river valley projects. This was to determine whether the uniqueness of the natural resources, like wildlife, flora and the genetic pool in the region, demanded its exclusive earmarking for that purpose, in which event the river valley project would not be accorded clearance. Even otherwise, it was imperative to consider the Project's environmental aspects, such as its effect on health, plant genetic resources, aquatic resources, water-logging and salinity of irrigated soils, deforestation and soil conservation. Its short and long term impact on population, on flora and fauna, on wildlife, on national parks and sanctuaries, on historical, cultural and religious monuments, on forests, agriculture, fisheries and recreation and tourism had to be taken in account. Field surveys were necessary for generating the requisite data for the impact assessment. The cost of the proposed remedial and mitigated measures had to be included in the project cost. The necessary data that was required to be collected for the purposes of the assessment of a project's environmental impact was set out in Guidelines for the purpose issued by the Ministry of Environment and Forests of the Union Government (which have been referred to above).

264. The contemporaneous Notes prepared by the Ministry of Water Resources and the Ministry of Environment and Forests, also referred to above, leave no manner of doubt that the requisite data for assessment of the environmental impact of the Project was not available when the environmental clearance thereof was granted. In the words of one of the Notes, "While some plans have been made, studies undertaken and action initiated, it will be clear from the preceding paragraphs that much still remains to be done. Indeed it is the view of the Ministry of Environment, Forests and Wildlife that what has been done so far whether by way of action or by way of studies does not amount to much and that many matters are yet in the early and preliminary stages". The Notes make clear that the studies, censuses, mapping of areas and field surveys for the collection of data for assessment of the environmental impact of the Project were likely to take a further 2 to 3 years. An environmental clearance based on next to no data in regard to the environmental impact of the Project was contrary to the terms of the then policy of the Union of India in regard to environmental clearances and, therefore, no clearance at all.

265. The environmental clearance of 24th June, 1987 stated that details had been sought from the Project authorities in respect of the rehabilitation master plan, phased catchment area treatment scheme, compensatory afforestation plan, Command area development, survey of flora and fauna, carrying capacity of surrounding area, seismicity and health aspects; field surveys had yet to be completed and complete details had been assured by 1989. Clearly, therefore, the necessary particulars in regard to the environmental impact of the Project, as required by the Guidelines, were not available when the environmental clearance was given, and it, therefore, could not have been given.

266. The conditions upon which the environmental clearance was given were that detailed surveys and studies would be carried out and the Narmada Control Authority, whose terms of reference had been amplified, would ensure that "environmental safeguard measures" were planned and implemented pari passu with the progress of work on the Project. No further assessment of the environmental impact of the Project was contemplated by the environmental clearance, nor, indeed, was it ever carried out.

267. What the environmental safeguards measures the Narmada Control Authority was to ensure were, and what their cost would be, was not known when the environmental clearance was given. There was, therefore, no way in which this cost could be included in the cost of the Project, which was a requirement of the Guidelines.

268. While the environmental safeguard measures were to be planned and implemented pari passu with the progress of the work on the Project, the catchment area treatment programme and the rehabilitation plans were required to be "so drawn as to be completed ahead of reservoir filling". This condition clearly required that before any water was impounded in the reservoir the catchment area treatment programme was not only to be drawn but also to be completed: so also the rehabilitation plans. If, as the Project authorities interpreted this clause, only the drawing of the catchment area treatment programme and the rehabilitation plans were to be completed ahead of reservoir filling, the clause would have read: "The catchment area treatment programme and the rehabilitation plans shall be drawn ahead of reservoir filling". What the clause as drawn required was that the catchment area treatment programme and the rehabilitation plans should be drawn in such a manner that the catchment area treatment and the rehabilitation works would be completed ahead of impoundment in the reservoir. This, plainly, was intended to off set, so far as was possible in the circumstances, the adverse effect of the impoundment of water in the reservoir upon the catchment and those who were required to be settled elsewhere. In fact, the impoundment began much before.

269. Learned Counsel for the Union of India submitted (hat most of the necessary surveys and studies had been carried out in regard to the environmental impact of the Project before the environmental clearance was given, and he invited our attention to what had been done. The short answer to the submission on behalf of the Union of India is that the two concerned Ministries of the Union of India thought otherwise at the relevant time. To quote the Note of one Ministry again, "While some plans have been made, studies undertaken and action initiated, it would be clear from the proceeding paragraph that much still remains to be done. Indeed it is the view of the Ministry of Environment, Forests and Wildlife that what has been done so far whether by way of action or by way of studies does not amount to much and that many matters are yet in the early and preliminary stages".

270. The fact that the environmental clearance was given by the Prime Minister and not by the Ministry of Environment and Forests, as it would ordinarily have been done, makes no difference at all. Under its own policy, as indicated by the Guidelines, the Union of India was bound to give environmental clearance only after a) all the necessary data in respect of the environmental impact of the Project had been collected and

assessed; b) the assessment showed that the Project could proceed; and c) the environmental safeguard measures, and their cost, had been worked out.

271. An adverse impact on the environment can have disastrous consequences for this generation and generations to come. This Court has in its judgments on Article 21 of the Constitution recognised this. This Court cannot place its seal of approval on so vast an undertaking as the Project without first ensuring that those best fitted to do so have had the opportunity of gathering all necessary data on the environmental impact of the Project and of assessing it. They must then decide if environmental clearance to the Project can be given, and, if it can, what environmental safeguard measures have to be adopted, and their cost. While surveys and studies on the environmental aspects of the Project have been carried out subsequent to the environmental clearance, they are not, due to what are euphemistically called "slippages", complete. Those who now examine whether environmental clearance to the Project should be given must be free to commission or carry out such surveys and studies and the like as they deem necessary. They must also, of course, consider such surveys and studies as have already been carried out. Given that the construction of the dam and other work on the Project has already commenced, this factor must play a part in their deciding whether or not environmental clearance should be accorded. Until environmental clearance to the Project is accorded by them, further construction work on the dam shall cease.

272. The Union of India has issued a notification on 27th January, 1994 called the "Environmental Impact Assessment Notification 1994" (and amended it on 4th May, 1994). Its terms are not applicable to the present proceedings, but its provisions are helpful in so far as they prescribe who is to assess the environmental impact assessment reports and environment management plans that are submitted by applicants for new projects, including hydro-electric projects. The notification says, "The reports submitted with the application shall be evaluated and assessed by the Impact Assessment Agency, and if deemed necessary it may consult a Committee of Experts, having a composition as specified in Schedule-III of this Notification. The Impact Assessment Agency (IAA) would be the Union Ministry of Environment and Forests. The Committee of Experts mentioned above shall be constituted by the IAA or such other body under the Central Government authorised by the IAA in this regard...." Schedule III of the notification reads thus:

#### COMPOSITION OF THE EXPERT COMMITTEE FOR ENVIRONMENTAL IMPACT ASSESSMENT

1. The Committees will consist of experts in the following disciplines:

- (i) Eco-System Management
- (ii) Air/Water Pollution Control
- (iii) Water Resource Management

- (iv) Flora/Fauna Conservation and Management
- (v) Land Use Planning
- (vi) Social Sciences/Rehabilitation
- (vii) Project Appraisal
- (viii) Ecology
- (ix) Environmental Health
- (x) Subject Area Specialists
- (xi) Representatives of NGOs/ Persons concerned with Environmental Issues.

2. The Chairman will be an outstanding and experienced ecologist or environmentalist or technical professional with wide managerial experience.

3. The representative of IAA will act as Member-Secretary.

4. Chairman and members will serve in their individual capacities, except those specifically nominated as representatives.

5. The membership of a Committee shall not exceed 15.

The Environmental Impact Agency of the Union Ministry of Environment and Forests shall now appoint a committee of experts composed of experts in the fields mentioned in Schedule III of the notification and that committee of experts shall assess the environmental impact of the Project as stated above.

273. When the writ petition was heard at the admission stage, this Court was most concerned about the distressing state of the relief to and rehabilitation of those ousted on account of the Project. The proper implementation of relief and rehabilitation measures was the aim of the Court at that time; but it was not contemplated that the other issues in the writ petition would not to be considered at the stage of its final hearing.

274. The many interim orders that this Court made in the years in which this writ petition was pending show how very little had been done in regard to the relief and rehabilitation of those ousted. It is by reason of the interim orders, and, in fairness, the cooperation and assistance of learned Counsel who appeared for the States, that much that was wrong has now been redressed. The States have also been persuaded to set up Grievance Redressal Authorities and it will be the responsibility of these Authorities to ensure that those ousted by reason of the Project are given relief and rehabilitation in due measure.

275. The State are lagging behind in the matter of the identification and acquisition of land upon which the oustees are to be resettled. Having regard to the experience of the past, only the Grievance Redressal Authorities can be trusted by this Court to ensure that the States are in possession of vacant lands suitable for the rehabilitation of the oustees. During the time that it takes to assess the environmental impact of the Project, the States must take steps to obtain, by acquisition or otherwise, vacant possession of suitable lands upon which the oustees can be rehabilitated. When the Project obtains environmental clearance, assuming that it does, each of the Grievance Redressal Authorities of the States of Gujarat, Madhya Pradesh and Maharashtra must certify, after inspection, before work on the further construction of the dam can begin, that all those ousted by reason of the increase in the height of the dam by 5 meters from its present level have already been satisfactorily rehabilitated and also that suitable vacant land for rehabilitating all those who will be ousted by the increase in the height of the dam by another 5 meters is already in the possession of the respective States; and this process must be repeated for every successive proposed 5 meter increase in the dam height.

276. Only by ensuring that relief and rehabilitation is so supervised by the Grievance Redressal Authorities can this Court be assured that the oustees will get their due.

277. It is necessary to provide for the contingency that, for one or other reason, the work on the Project, now or at any time in future, does not proceed and the Project is not completed. Should that happen, all oustees who have been rehabilitated must have the option to continue to reside where they have been rehabilitated or to return to where they were ousted from, provided such place remains habitable, and they must not be made at all liable in monetary or other terms on this account.

278. When the writ petition was filed the process of relief and rehabilitation, such as it was, was going on. The writ petitioners were not guilty of any laches in that regard. In the writ petition they raised other issues, one among them being related to the environmental clearance of the Project. Given what has been held in respect of the environmental clearance, when the public interest is so demonstrably involved, it would be against public interest to decline relief only on the ground that the Court was approached belatedly.

279. I should not be deemed to have agreed to anything stated in Brother Kirpal's judgment for the reason that I have not traversed it in the course of what I have stated.

280. In the premises,

1) The Environmental Impact Agency of the Ministry of Environment and Forests of the Union of India shall forthwith appoint a Committee of Experts in the fields mentioned in Schedule III of the notification dated 27th January, 1994, called the Environmental Impact Assessment Notification, 1994.

2) The Committee of Experts shall gather all necessary data on the environmental impact of the Project. They shall be free to commission or carry out such surveys and studies and

the like as they deem necessary. They shall also consider such surveys and studies as have already been carried out.

3) Upon such data, the Committee of Experts shall assess the environmental impact of the Project and decide if environmental clearance to the Project can be given and, if it can, what environmental safeguard measures must be adopted, and their cost.

4) In so doing, the Committee of Experts shall take into consideration the fact that the construction of the dam and other work on the Project has already commenced.

5) Until environmental clearance to the Project is accorded by the Committee of Experts as aforesaid, further construction work on the dam shall cease.

6) The Grievance Redressal Authorities of the States of Gujarat, Madhya Pradesh and Maharashtra shall ensure that those ousted by reason of the Project are given relief and rehabilitation in due measure.

7) When the Project obtains environmental clearance, assuming that it does, each of the Grievance Redressal Authorities of the States of Gujarat, Madhya Pradesh and Maharashtra shall, after inspection, certify, before work on the further construction of the dam can begin, that all those ousted by reason of the increase in the height of the dam by 5 meters from its present level have already been satisfactorily rehabilitated and also that suitable vacant land for rehabilitating all those who will be ousted by the increase in the height of the dam by another 5 meters is already in the possession of the respective States.

8) This process shall be repeated for every successive proposed 5 meter increase in the dam height.

9) If for any reason the work on the Project, now or at any time in the future, cannot proceed and the Project is not completed, all oustees who have been rehabilitated shall have the option to continue to reside where they have been rehabilitated or to return to where they were ousted from, provided such place remains habitable, and they shall not be made at all liable in monetary or other terms on this account.

281. The writ petition is allowed in the aforesaid terms. The connected matters are disposed of in the same terms.

282. No order as to costs.